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ABSTRACT

This report, 31st in a series begun in 1964, provides revisions of projections shown in "Projections of Education Statistics to 2011" and includes statistics on elementary and secondary schools and degree-granting institutions. Included are projections of enrollments and graduates to the year 2012. Projections of teachers and expenditures are not included in this edition, but they are available in "Projections of Education Statistics to 2011." This report also contains projections of public elementary and secondary school enrollment and public high school graduates to the year 2112 at the state level. These projections have been produced by the National Center for Education Statistics, but they are not intended to supplant detailed projections prepared in individual states. The report contains a methodology section describing models and assumptions used to develop the national and state projections. The enrollment models use data and population estimates and projections from the National Center for Education Statistics and the U.S. Census Bureau. Population projections are not based on the 200 Census data, which have not yet been released. Most of the projections of education statistics include three alternatives based on different assumptions about demographic and economic growth plans. The first set of projections (middle alternative) is deemed to represent the most likely projections, but the high and low alternatives provide a reasonable range of outcomes. Projections suggest a 1% increase in public and private elementary and secondary enrollment, with a slight decrease in the lower grades, and an increase of about 4% in the upper grades. Enrollment in degree-granting institutions is projected to increase 15% by 2011, and high school graduates are expected to increase by 9%. Four appendixes contain a discussion of the methodology, supplementary tables, a list of data sources, and a glossary. (Contains 44 figures and 49 tables.) (SLD)

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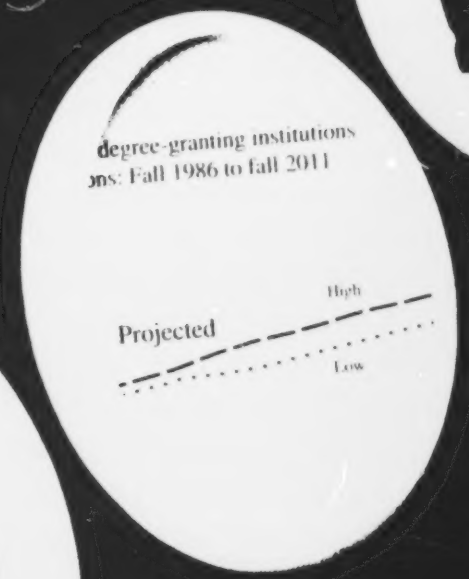
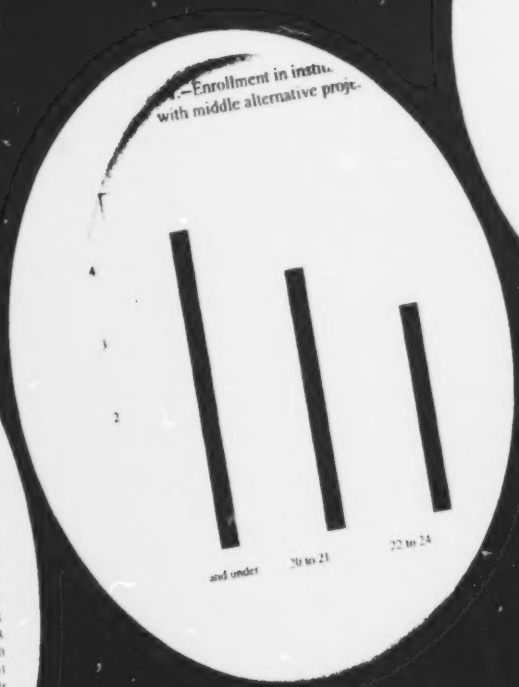
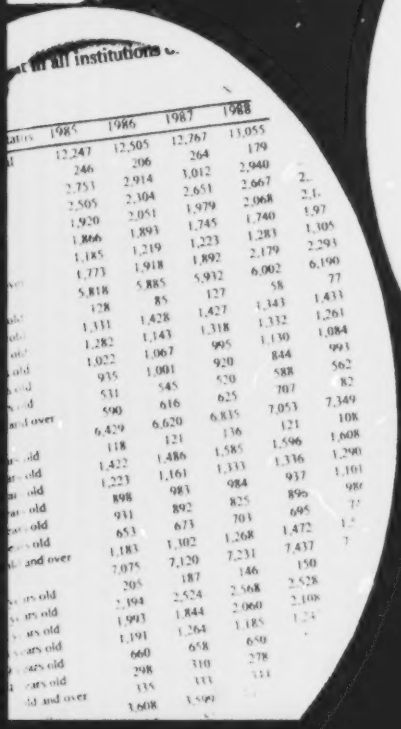
# Projections of Education Statistics to 2012

## Thirty-first Edition

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# Projections of Education Statistics to 2012

## Thirty-first Edition

October 2002

Debra E. Gerald
William J. Hussar
National Center for
Education Statistics



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# Foreword

*Projections of Education Statistics to 2012* is the 31st report in a series begun in 1964. This report provides revisions of projections shown in *Projections of Education Statistics to 2011* and includes statistics on elementary and secondary schools and degree-granting institutions. Included are projections of enrollments and graduates to the year 2012. Projections of teachers and expenditures are not included in this edition, but they are available in *Projections of Education Statistics to 2011*.

In addition, the report includes projections of public elementary and secondary school enrollment and public high school graduates to the year 2012 at the state level. These projections were produced by the National Center for Education Statistics (NCES) to provide researchers, policy analysts, and others with state-level projections developed using a consistent methodology. They are not intended to supplant detailed projections prepared in individual states.

Assumptions regarding the population and the economy are the key factors underlying the projections of education statistics. The projections do not reflect changes in national, state, or local education policies that may affect enrollment levels.

This report contains a methodology section describing models and assumptions used to develop the national and state projections. The enrollment models use enrollment data and population estimates and projections from NCES and the U.S. Census Bureau. The models are based on the mathematical projection of past data patterns into the future. The models also use projections of economic variables from the company DRI-WEFA, Inc., an economic forecasting service.

The population projections are not based on the 2000 census data. Projections of national population data based on the 2000 census are not scheduled for release until fall 2002. The projections presented in this report reflect revisions influenced by the 1990 census, incorporation of the 2000 estimates, and the latest assumptions for the fertility rate, internal migration, net immigration, and mortality rate. For further information, see appendix A.

Most of the projections of education statistics include three alternatives, based on different assumptions about demographic and economic growth paths. Although the first alternative set of projections (middle alternative) in each table is deemed to represent the most likely projections, the low and high alternatives provide a reasonable range of outcomes.

In the forecast summary, highlights for key education statistics are presented. A summary of the projections is available in a pocket-sized booklet, *Pocket Projections to 2012*.

Valena W. Plisko, Associate Commissioner
Early Childhood, International, and Crosscutting Studies Division
August 2002

# Acknowledgments

*Projections of Education Statistics to 2012* was produced by the National Center for Education Statistics (NCES) in the Early Childhood, International, and Crosscutting Studies Division under the general direction of Thomas D. Snyder, Director of the Annual Reports Program. The report was prepared by Debra E. Gerald, mathematical statistician, and William J. Hussar, financial economist.

Debra E. Gerald and William J. Hussar prepared the following: elementary and secondary enrollment (chapter 1); enrollment in degree-granting institutions (chapter 2); high school graduates (chapter 3); earned degrees conferred (chapter 4); and the appendixes explaining the methodologies used to develop these projections. Tabithia Bailey and Geoffrey Greene of DRI-WEFA Inc., implemented the projection models. Anindita Sen and Emily Dill of the Education Statistics Services Institute (ESSI) updated the models' databases and prepared the tables, figures, mean absolute percentage errors, data sources, and glossary.

The technical review was done by Shelley K. Burns of NCES and David C. Miller of ESSI. Ellen Harkavy, Jason Sellers, and Molly Soule of ESSI assisted in the technical review of this report. The adjudication was conducted by Bruce Taylor, adjudicator of NCES. Valuable assistance was also provided by the following reviewers: W. Vance Grant of the National Library of Education, Office of Educational Research and Improvement; Joseph W. McTighe of the Council for American Private Education; Ching-li Wang of the U.S. Census Bureau; and Stephen Broughman, Frank Johnson, and Frank Morgan of NCES.

The cover was designed by Heather Block of ESSI.

# Highlights

## Changes Between 2000 and 2012

*Public and private elementary and secondary enrollment—1 percent increase.*
Total public and private elementary and secondary enrollment is projected to increase from 53.2 million in 2000 to 53.9 million in 2005. Then total enrollment is projected to decrease to 53.5 million in 2010, followed by an increase to 53.7 million in 2012, resulting in an overall increase of 1 percent from 2000 (table 1).

*Public and private K–8 enrollment—less than 1 percent decrease.*
Total public and private K–8 enrollment is projected to remain around 38.4 million between 2000 and 2002. Then total K–8 enrollment is projected to decrease to 37.7 million in 2008, followed by an increase to 38.3 million in 2012, resulting in an overall decrease of less than 1 percent from 2000 (table 1).

*Public and private 9–12 enrollment—4 percent increase.*
Total public and private 9–12 enrollment is projected to increase from 14.8 million in 2000 to 16.1 million in 2007. Then total 9–12 enrollment is projected to decrease to 15.4 million in 2012, resulting in an overall increase of 4 percent from 2000 (table 1).

*Public school enrollment in selected grades 10, 11, and 12—more than 4 percent increase.*
Between 2000 and 2012, public school enrollment in grade 10 is projected to increase by 4 percent. Over the same period, enrollments in grades 11 and 12 are expected to increase 5 and 8 percent, respectively (table 3).

*Public school enrollment in selected grades 1, 8, and 9—less than 4 percent increase.*
Between 2000 and 2012, public school enrollment in grade 1 is projected to increase 2 percent. Over the same period, enrollments in grades 8 and 9 are projected to increase 2 and 3 percent, respectively (table 3).

*Public school enrollment in the Western region—9 percent increase.*
Between 2000 and 2012, public elementary and secondary enrollment is projected to increase 9 percent in the West and 1 percent in the South. Over the same period, in the Northeast and Midwest, enrollment is projected to decrease 5 and 4 percent, respectively (table 5).

*Enrollment in degree-granting institutions—15 percent increase.*
Enrollment in degree-granting postsecondary institutions is projected to increase from 15.3 million in 2000 to 17.7 million by 2012, an increase of 15 percent. A 12 percent increase is projected under the low alternative and a 19 percent increase is projected under the high alternative (table 10).

*High school graduates—9 percent increase.*
Graduates from public and private high schools are projected to increase from 2.8 million in 1999–2000 to 3.1 million by 2011–12, an increase of 9 percent. This increase reflects the projected rise in the 18-year-old population (table 23).

*Public high school graduates in the Western region—17 percent increase.*
Between 1999–2000 and 2011–12, the number of public high school graduates is projected to increase 17 percent in the West and 11 percent in the South. Graduates in the Northeast and the Midwest are projected to increase 8 and 1 percent, respectively, over the same period (table 25).

*Bachelor's degrees—16 percent increase.*
The number of bachelor's degrees is expected to increase from 1,237,875 in 1999–2000 to 1,437,000 by 2011–12, an increase of 16 percent (table 27).

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# Introduction

## Guide to this Edition

This edition of *Projections of Education Statistics to 2012* provides projections for key education statistics, including enrollment and graduates in elementary and secondary schools and degree-granting institutions. Elementary and secondary teachers and expenditures of public schools are excluded from this edition, but they do appear in *Projections of Education Statistics to 2011*. The tables, figures, and text contain national data on enrollment and graduates for the past 14 years and projections to the year 2012. The tables, figures, and text contain state-level data on projections of enrollment in public elementary and secondary schools and public high school graduates to the year 2012. Similar methodologies were used to obtain a uniform set of projections for the 50 states and the District of Columbia. These projections are further adjusted to agree with the national projections of public elementary and secondary school enrollment and public high school graduates appearing in this report. These projections reflect 2000 population estimates and population projections based on the 1990 census, but are not adjusted for the 1990 net undercount of 4 to 5 million. The population projections are not based on the 2000 census data. Projections of national population data are not scheduled for release until fall 2002. Appendix A describes the methodology and assumptions used to develop the projections. Appendix B contains tables of supplementary data. Data sources are presented in appendix C. Appendix D is a glossary of terms.

## Limitations of Projections

Projections of time series usually differ from the final reported data due to errors from many sources. This is because of the inherent nature of the statistical universe from which the basic data are obtained and the properties of projection methodologies, which depend on the validity of many assumptions. Therefore, alternative projections are shown for most statistical series to denote the uncertainty involved in making projections. These alternatives are not statistical confidence limits, but instead represent judgments made by the authors as to reasonable upper and lower bounds. The mean absolute percentage error is one way to express the forecast accuracy of past projections. This measure expresses the average value of the absolute value of errors in percentage terms. For example, the mean absolute percentage errors of public school enrollment in grades K–12 for lead times of 1, 2, 5, and 10 years were 0.2, 0.5, 1.1, and 2.7 percent, respectively. On the other hand, mean absolute percentage errors for doctor's degrees for lead times of 1, 2, and 5 years were 2.6, 3.4, and 3.0 percent, respectively. For more information on mean absolute percentage errors, see table A2, page 79.

Alternative projections are presented for enrollment and earned degrees conferred in degree-granting institutions.

# Chapter 1

# Elementary and Secondary Enrollment

## National

Public and private elementary and secondary school enrollments peaked at a record level of 53.2 million in fall 2000. The record 2000 enrollment reflects a 14 percent increase since fall 1990. Further small enrollment increases are expected between 2000 and 2005, followed by small enrollment declines between 2005 and 2010. Between 2010 and 2012, enrollment is projected to increase again (table 1). The primary reason for the continuing increase over the first 5 years is the rise in the number of annual births between 1977 and 1990—sometimes referred to as the "baby boom echo" (appendix table B1 and figure 1). After declines and a period of stability from 1991 to 1997, the number of births has begun rising again. After a decrease in 2001, the 3- to 5-year-old population is projected to increase 6 percent between 2002 and 2012 (appendix table B2 and figure 2). An increase in the 5- to 13-year-old population from 2000 to 2002 and a decrease from 2003 to 2008, followed by an increase from 2009 to 2012, are expected to cause rises in K–8 enrollment through 2002 and decreases through 2008 and then increases to 2012. Between 2000 and 2012, elementary enrollment is projected to remain at the high levels evident in the late 1990s (figure 4). Increases in the 14- to 17-year-old population through 2007 and decreases through 2012 will continue to influence growth in grades 9 through 12 enrollment through 2007. Between 2000 and 2012, enrollment in grades 9–12 is projected to exceed enrollment in the late 1990s.

### Enrollment, by Grade Group

Enrollment in grades K–8 increased from 34.0 million in 1990 to approximately 38.4 million in 2000, an increase of 13 percent. After small increases through 2002, K–8 enrollment is projected to decrease slowly through 2008 to 37.7 million. Thereafter, elementary enrollment is expected to begin increasing again, rising to 38.3 million by 2012 (table 1 and figure 4).

Enrollment in grades 9–12 has risen from 12.5 million in 1990 to about 14.8 million in 2000, an increase of 18 percent. Thereafter, enrollment in grades 9–12 is projected to rise to 16.1 million in 2007, before decreasing slightly to 15.4 million by 2012, an increase of 4 percent from 2000. In the year 2005, enrollment in grades 9–12 is projected to reach an all-time record of 15.9 million, surpassing the previous high of 15.7 million in fall 1976.

### Enrollment, by Control of School

Enrollment in public elementary and secondary schools increased from 41.2 million in 1990 to 47.2 million in 2000, an increase of 15 percent (figure 5). Enrollment in public schools is projected to rise to 47.9 million in 2006, decrease to 47.6 million in 2010, before increasing again to 47.7 million in 2012 (table 2).

Since 1990, enrollment in private elementary and secondary schools has fluctuated between 5.2 million and 6.0 million. In fall 2000, an estimated 5.9 million students were enrolled in private elementary and secondary schools. Over the projection period, enrollment in private schools is projected to be between 5.9 and 6.0 million (table 2).

### Public School Enrollment, by Selected Grade

Between 2000 and 2012, public school enrollment in grades K–12 is projected to increase 1 percent. In grades 1, 4, 8, and 12, projections of public school enrollment will vary over the projection period (table 3 and figure 6). Enrollment in grade 1 is projected to decrease from 2000 to 2002 and then increase through 2012. Enrollment in grade 4 is expected to decrease through 2005 and then increase through 2012. Enrollment in grade 8 is projected to increase to 2004 and then generally decrease to 2012. Enrollment in grade 12 is expected to increase through 2008 and then decrease to 2012.

## Methodology

Enrollment rates for the school-age populations are nearly 100 percent for elementary grades and junior-high grades and close to 90 percent for high school grades. Thus, the historical and projected patterns of decline and growth in enrollment for grades K-8 and grades 9-12 are strongly correlated with changes in the sizes of the 5- to 13-year-old population and the 14- to 17-year-old population. Projections of enrollments in public and private elementary and secondary schools are based on projected grade progression rates. The grade progression rates for grades 2 through 10 are all close to 100 percent. Rates for grades 6-7 and grades 8-9 are significantly over 100 percent. Traditionally, these are the grades in which large numbers of elementary students transfer to public or private secondary schools. The progression rates for grades 10 to 11 and 11 to 12 are about 90 percent. The grade progression rates are assumed to be constant over the projection period. The grade progression rate method assumes that past trends in factors affecting private school enrollments will continue over the projection period. This assumption implies that all factors influencing enrollments will display future patterns consistent with past patterns. This method implicitly includes the net effect of such factors as internal migration, dropouts, deaths, nonpromotion, and transfers to and from public schools. The projections do not assume changes in policies or consumer attitudes that may affect enrollment levels.

Projections of public elementary and secondary enrollment that have been produced over the last 19 years are more accurate than projections of public high school graduates that NCES has published over the same time period. For more information, see table A2, page 79.

# State Level

Public elementary and secondary school enrollment is projected to increase 1 percent between 2000 and the year 2012, but growth will vary widely across the nation (table 4 and figure 7). Enrollment will increase in the Western and Southern regions, where public school enrollment is expected to increase 9 percent and 1 percent, respectively. A decrease of 5 percent is projected for the Northeastern region, while a decrease of 4 percent is expected in the Midwestern region (table 5 and figure 8).

## Public School Enrollment

Over the projection period, public school enrollment is expected to vary across states. All of the states in the Northeast are expected to show enrollment decreases. The largest decreases will occur in Connecticut (7 percent) and Massachusetts (7 percent). A decrease of 2 percent is expected in New Hampshire.

In the Midwest, public school enrollment will decrease in all states except South Dakota between 2000 and 2012. An increase of 1 percent is projected for South Dakota. The largest decreases are projected for Iowa (6 percent), Michigan (7 percent), and North Dakota (6 percent).

Public school enrollment increases are projected for 5 of the 17 Southern states between 2000 and 2012. The largest increases are projected for Georgia (5 percent), Texas (8 percent), and Virginia (5 percent). The largest decreases in enrollment are expected for the District of Columbia (7 percent), Oklahoma (7 percent), and West Virginia (8 percent).

All of the 13 states in the West are expected to show increases in public school enrollment between 2000 and 2012. The largest increases are expected in Alaska (15 percent), Hawaii (16 percent), and Idaho (17 percent).

## Public Elementary Enrollment

Between 2000 and 2012, public elementary school enrollment in kindergarten through grade 8 (K-8) is expected to decrease by 0.4 percent. However, public school elementary enrollment is projected to increase in 19 states (table 6 and figure 9). These expected increases in elementary enrollment are a reflection of internal migration, immigration and the relatively high level of births in the 1990s, rather than changes in the attendance rates of young children. The NCES projections do not account for enrollment increases that may be caused by changing state and local policies about the provision of prekindergarten and kindergarten programs. Expansion of these programs could lead to higher enrollments at the elementary school level.

Public school elementary enrollment is expected to show a decrease of 7 percent in the Northeast between 2000 and 2012 (table 7 and figure 10). All states are expected to show decreases. The largest decreases are projected for Connecticut (11 percent), and Massachusetts (10 percent). The smallest decreases are expected for New Hampshire (3 percent) and Vermont (3 percent).

A decrease of 4 percent in public school elementary enrollment has been projected for the Midwestern region between 2000 and 2012. Eight of the 12 states in this region are projected to show decreases. The largest decreases are expected in Michigan (9 percent) and Ohio (6 percent). The largest increase is projected for South

Dakota (7 percent).

A decrease of less than 0.5 percent is expected for the Southern region between 2000 and 2012. Fourteen of the 17 states are projected to show decreases. The largest decreases are projected for North Carolina (7 percent) and West Virginia (8 percent). The largest increase is projected for Texas (7 percent).

Public school elementary enrollment in the Western states is projected to increase by 8 percent between 2000 and 2012. All of the states are projected to show increases except Nevada, which is expected to decrease by 2 percent. Over the projection period, the largest enrollment increases are expected for Hawaii (19 percent), Idaho (19 percent), and Wyoming (22 percent).

## Public High School Enrollment

Between 2000 and 2012, enrollment in public high schools (grades 9 through 12) is expected to increase by 5 percent (table 8 and figure 11). Over the projection period, enrollment increases are projected in all of the regions except the Midwest.

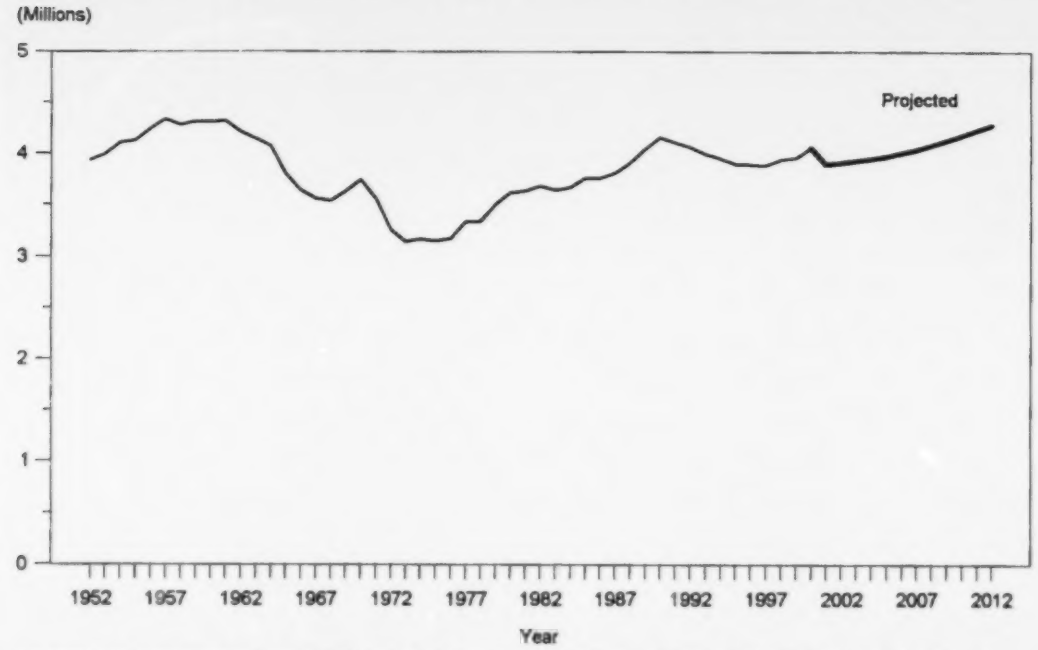
The Northeast public high school enrollment is projected to increase by 2 percent between 2000 and 2012 (table 9 and figure 12). The largest increase is expected in New Jersey (12 percent). The largest decreases are projected for Maine (10 percent) and Vermont (10 percent).

The Midwestern region is expected to show a decrease of 2 percent in public high school enrollment between 2000 and 2012. The largest decreases are projected in North Dakota (19 percent) and South Dakota (11 percent).

Between 2000 and 2012, public high school enrollment in the South is projected to increase by 6 percent. Over the projection period, the largest increases are expected in Georgia (13 percent) and Virginia (14 percent). The largest decrease is projected for the District of Columbia (23 percent).

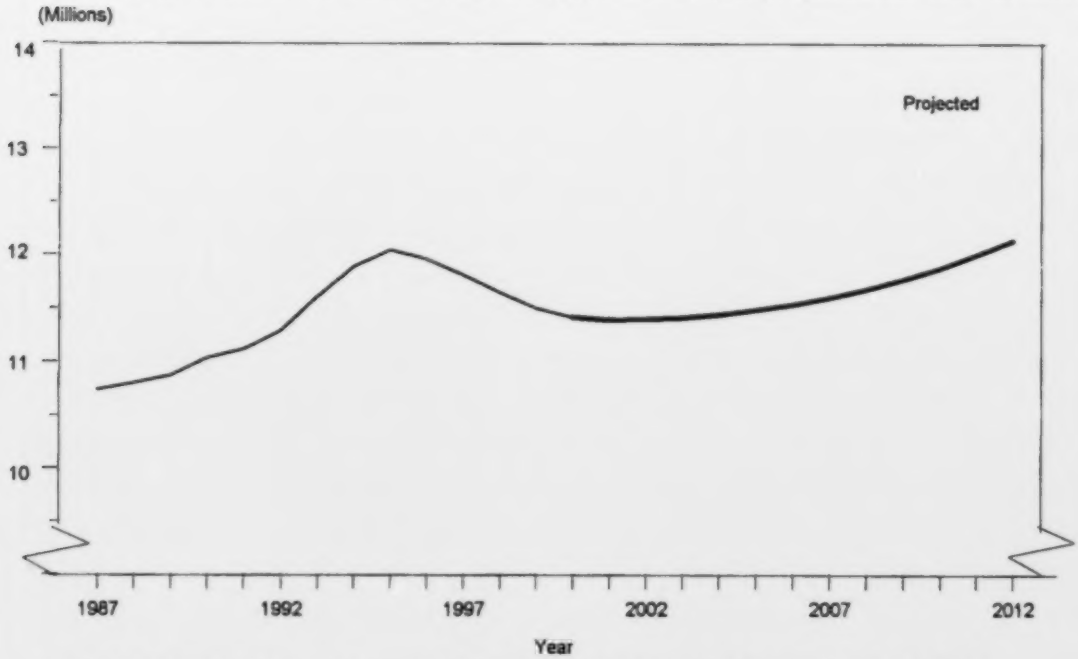
The Western region's public high school enrollment is expected to increase by 11 percent between 2000 and 2012. Over the projection period, the largest increases are projected for Arizona (20 percent) and Nevada (34 percent). The largest decrease is expected for Wyoming (8 percent).

**Figure 1.—Annual number of births, with projections: 1952 to 2012**




SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-25, Nos. 1092, 1095, and "National Population Estimates,"December 2001, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000.

**Figure 2.—Three- to five-year-old population, with projections: 1987 to 2012**




SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-25, Nos. 1092, 1095, and "National Population Estimates," December 2001, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000.



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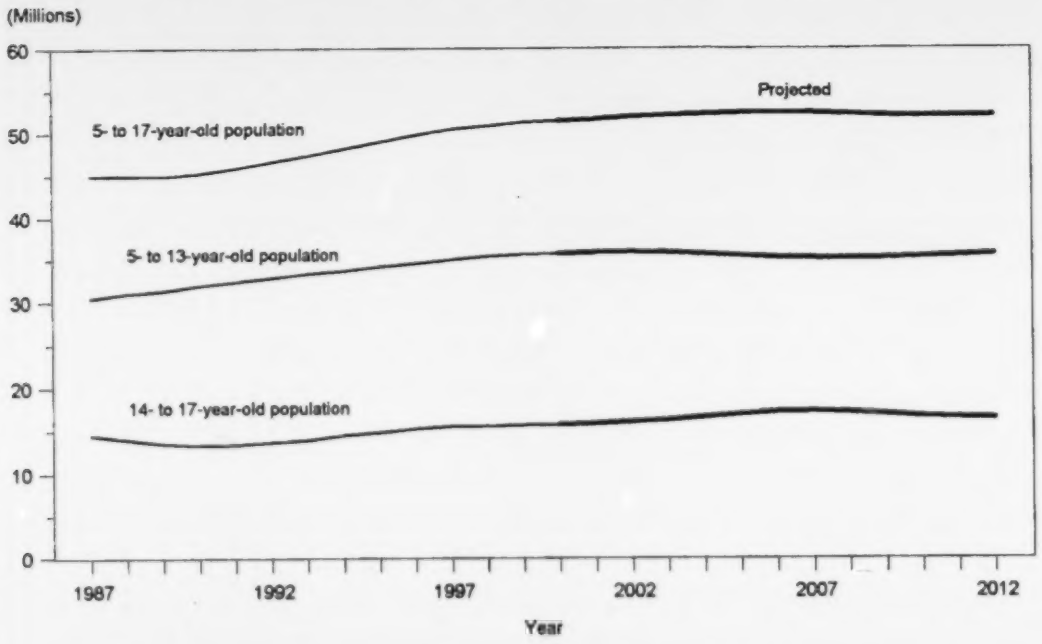
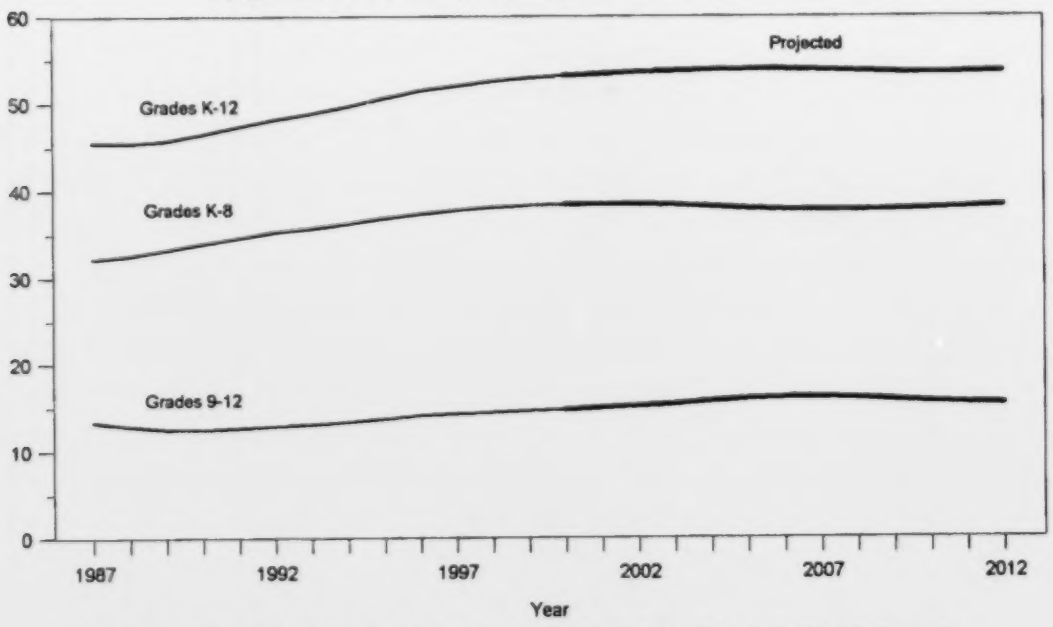
## Figure 3.—School-age populations, with projections: 1987 to 2012




SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-25, Nos. 1092, 1095, and "National Population Estimates," December 2001, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000.

## Figure 4.—Enrollment in elementary and secondary schools, by grade level, with projections: Fall 1987 to fall 2012




SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; Common Core of Data surveys; Private School Universe Survey, various years; and National Elementary and Secondary Enrollment Model.



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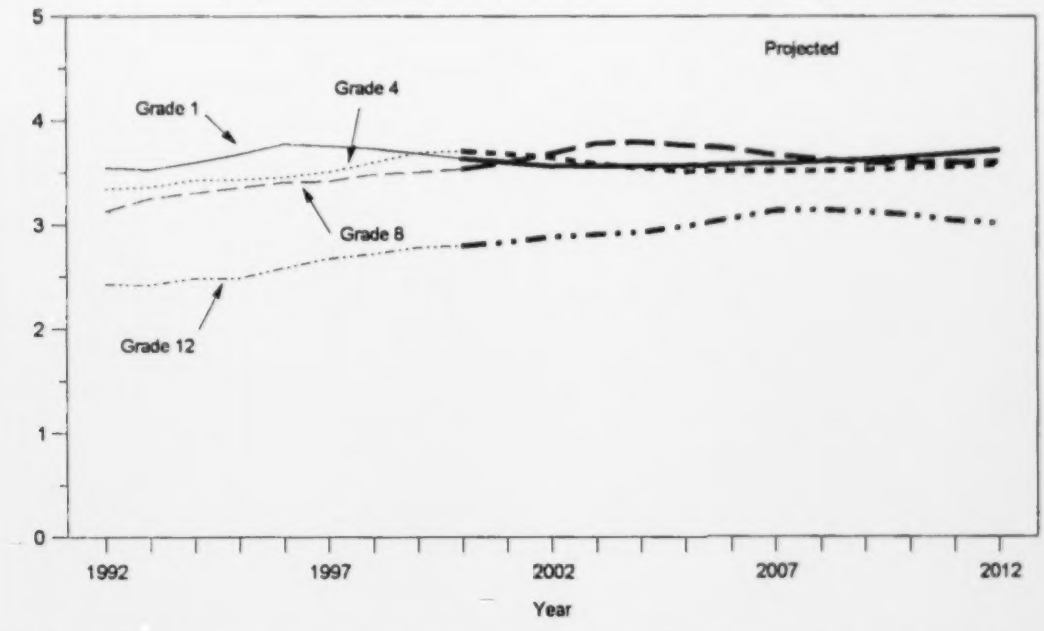
**Figure 5.—Enrollment in elementary and secondary schools, by control of institution, with projections: Fall 1987 to fall 2012**

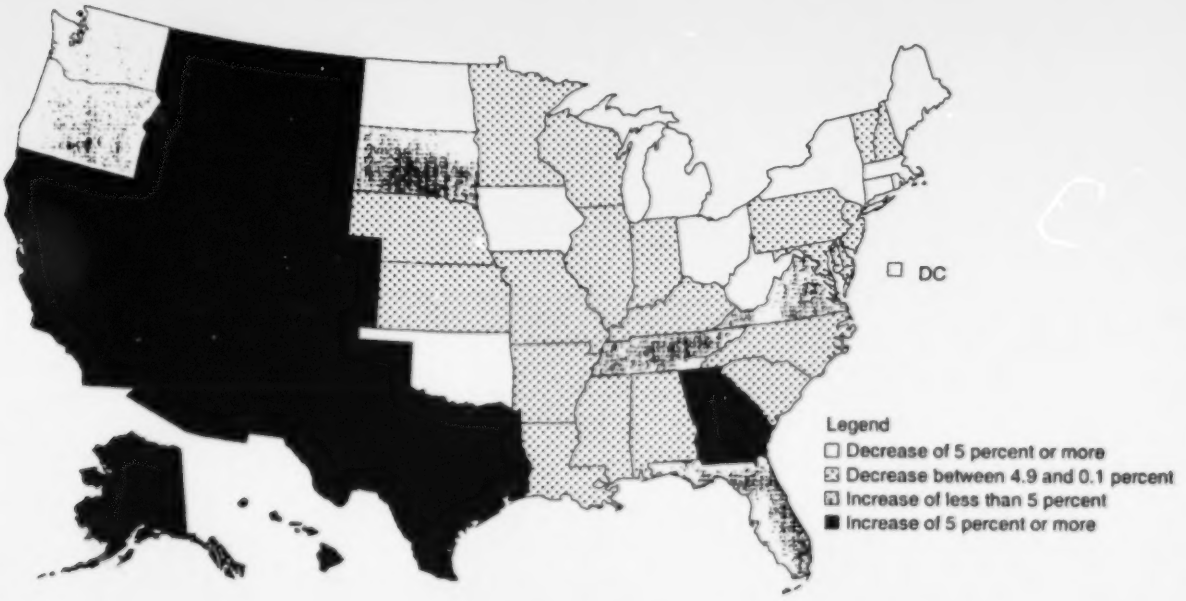
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; Common Core of Data surveys; Private School Universe Survey, various years; and National Elementary and Secondary Enrollment Model.

**Figure 6.—Enrollment in public elementary and secondary schools, by selected grade, with projections: Fall 1992 to fall 2012**



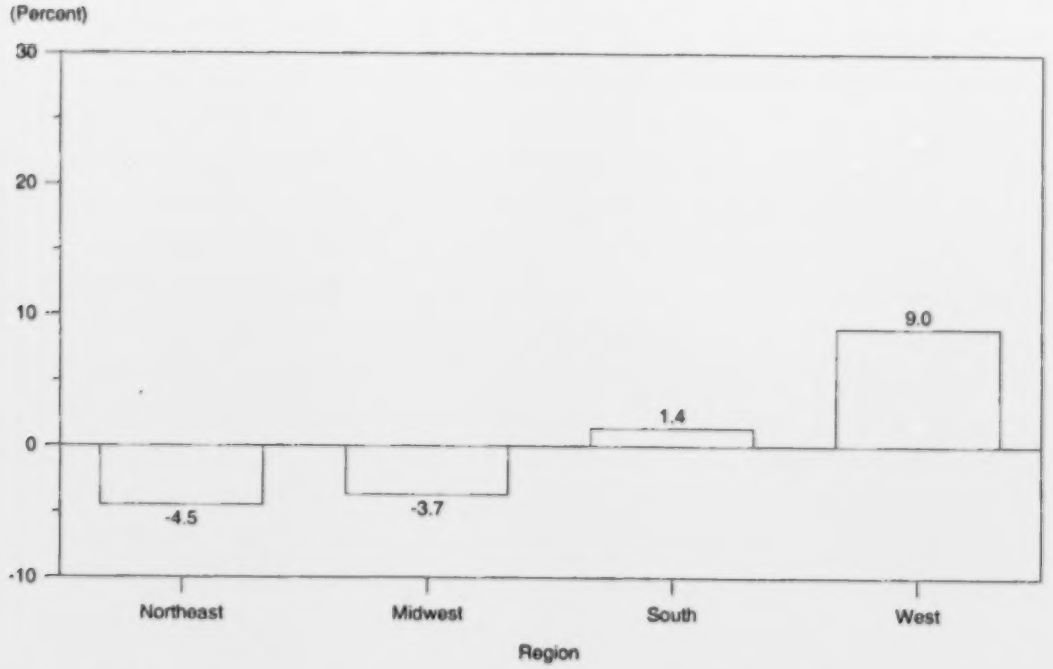

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; and Common Core of Data Surveys; and National Elementary and Secondary Enrollment Model.

**Figure 7.—Percent change in grades K-12 enrollment in public schools, by state: Fall 2000 to fall 2012**


DC
Legend
Decrease of 5 percent or more
Decrease between 4.9 and 0.1 percent
Increase of less than 5 percent
Increase of 5 percent or more

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys; and State Public Elementary and Secondary Enrollment Model.

**Figure 8.—Percent change in public K-12 enrollment, by region: Fall 2000 to fall 2012**




SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys; and State Public Elementary and Secondary Enrollment Model.



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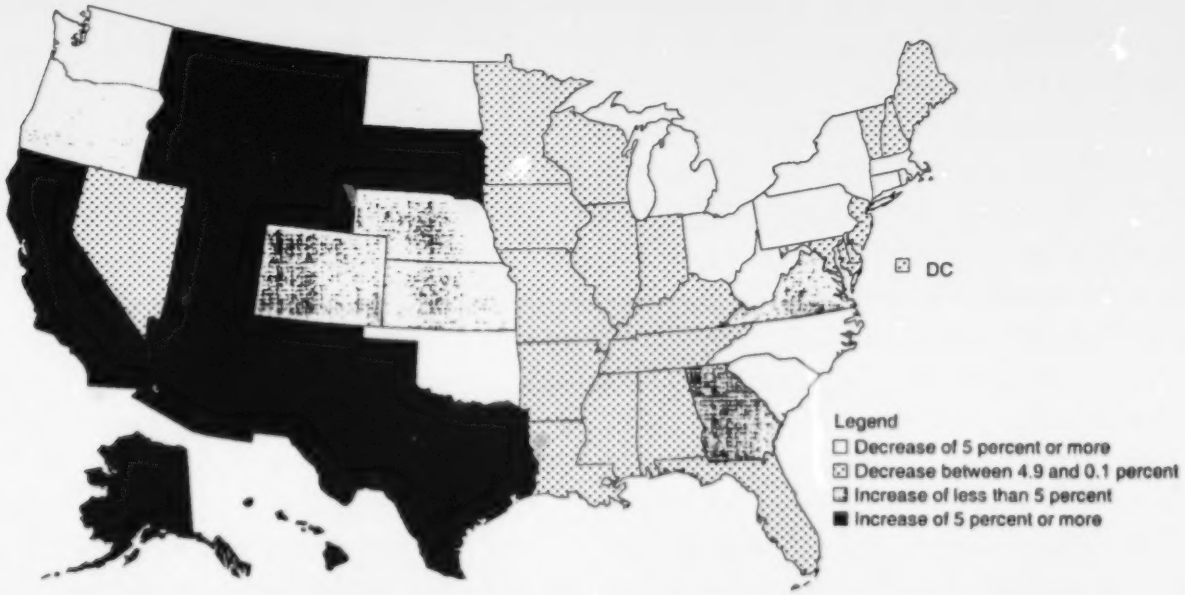
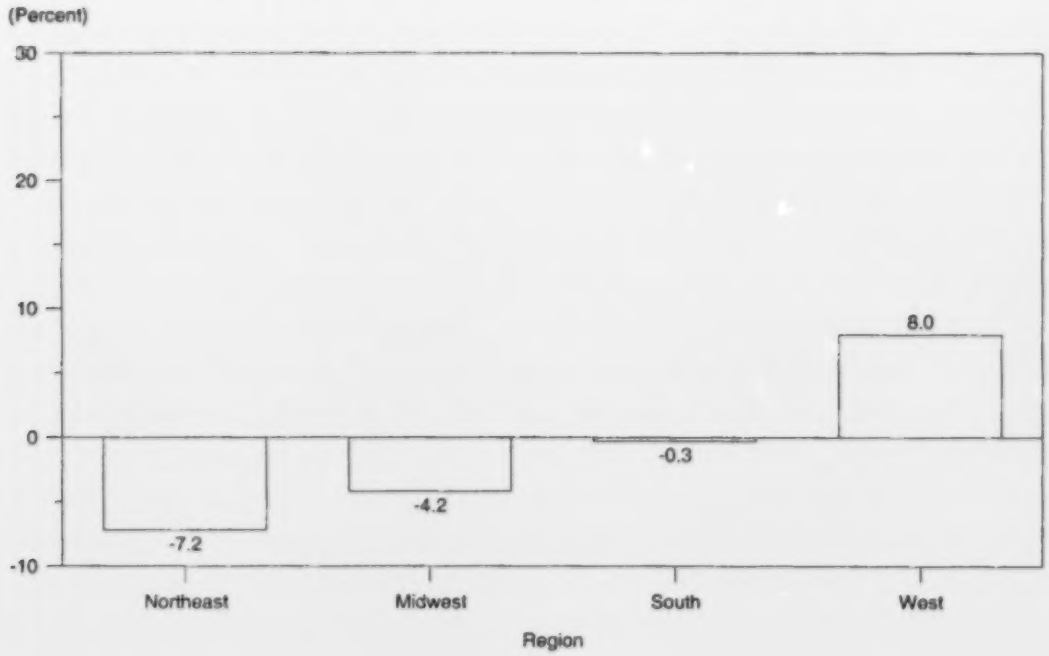
**Figure 9.—Percent change in grades K-8 enrollment in public schools, by state: Fall 2000 to fall 2012**


DC
Legend
Decrease of 5 percent or more
Decrease between 4.9 and 0.1 percent
Increase of less than 5 percent
Increase of 5 percent or more

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys; and State Public Elementary and Secondary Enrollment Model.

**Figure 10.—Percent change in public K-8 enrollment, by region: Fall 2000 to fall 2012**




SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys; and State Public Elementary and Secondary Enrollment Model.



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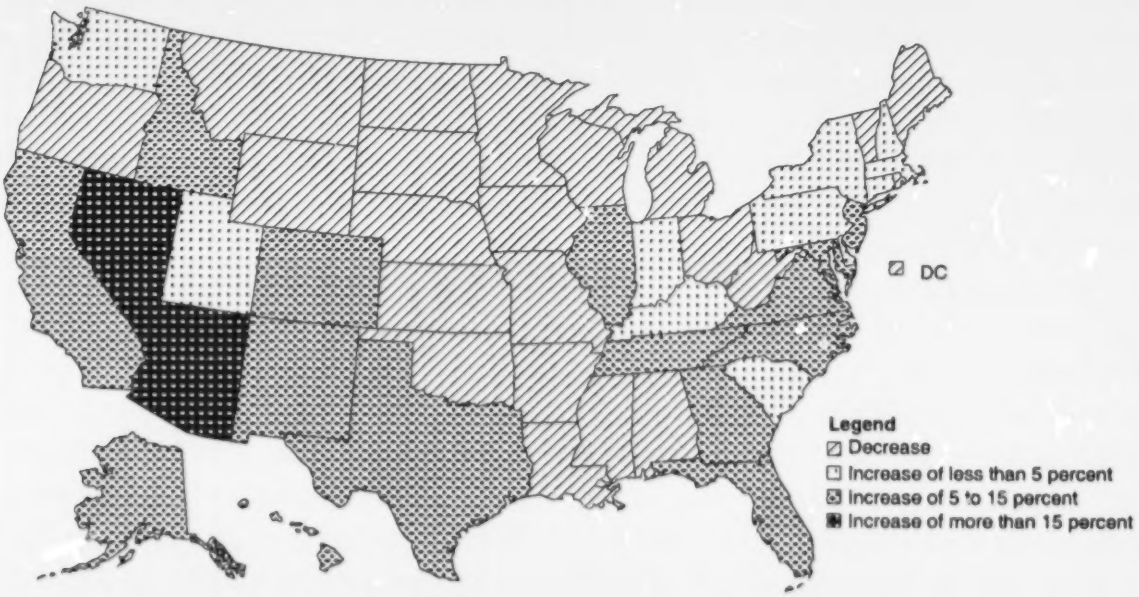
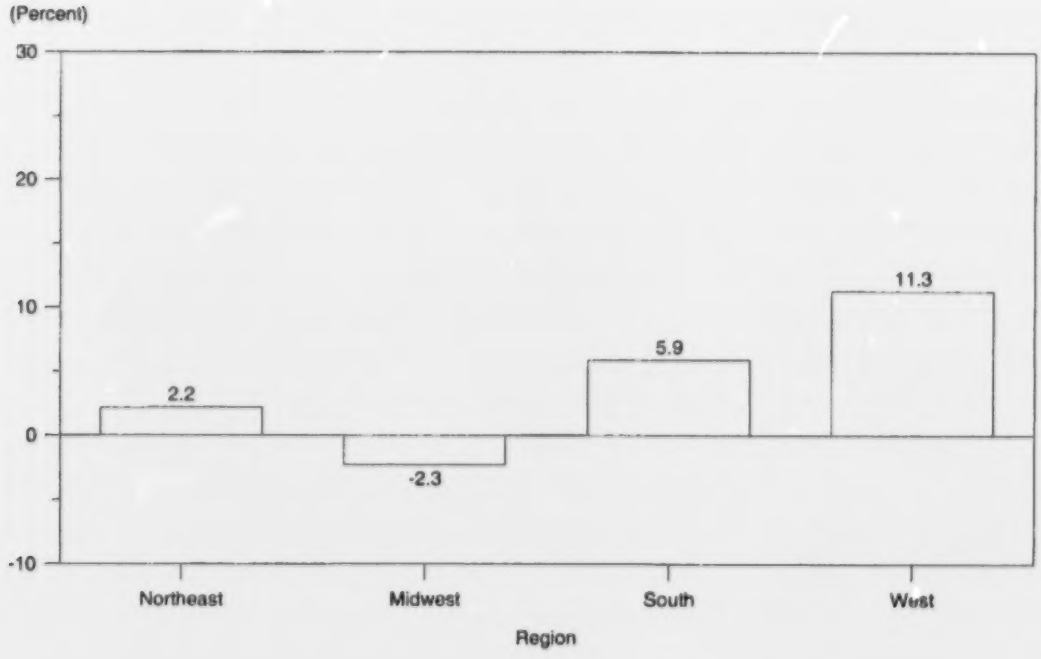
**Figure 11.—Percent change in grades 9-12 enrollment in public schools, by state: Fall 2000 to fall 2012**




SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys; and State Public Elementary and Secondary Enrollment Model.

**Figure 12.—Percent change in public 9-12 enrollment, by region: Fall 2000 to fall 2012**




SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys; and State Public Elementary and Secondary Enrollment Model.



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**Table 1.—Enrollment in grades K–8 and 9–12 of elementary and secondary schools, by control of institution, with projections: Fall 1987 to fall 2012**

(In thousands)

| Year | Total | | | Public | | | Private | | |
|---|---|---|---|---|---|---|---|---|---|
| | K–12[1] | K–8[1] | 9–12 | K–12[1] | K–8[1] | 9–12 | K–12[1] | K–8[1] | 9–12 |
| 1987 [2] | 45,487 | 32,165 | 13,323 | 40,008 | 27,933 | 12,076 | 5,479 | 4,232 | 1,247 |
| 1988 [2] | 45,430 | 32,537 | 12,893 | 40,188 | 28,501 | 11,687 | 5,242 | 4,036 | 1,206 |
| 1989 [3] | 45,741 | 33,187 | 12,554 | 40,543 | 29,152 | 11,390 | 5,198 | 4,035 | 1,163 |
| 1990 [4] | 46,451 | 33,962 | 12,488 | 41,217 | 29,878 | 11,338 | 5,234 | 4,084 | 1,150 |
| 1991 [3] | 47,322 | 34,619 | 12,703 | 42,047 | 30,506 | 11,541 | 5,275 | 4,113 | 1,162 |
| 1992 [4] | 48,145 | 35,264 | 12,882 | 42,823 | 31,088 | 11,735 | 5,322 | 4,175 | 1,147 |
| 1993 [3] | 48,813 | 35,719 | 13,093 | 43,465 | 31,504 | 11,961 | 5,348 | 4,215 | 1,132 |
| 1994 [4] | 49,609 | 36,233 | 13,376 | 44,111 | 31,898 | 12,213 | 5,498 | 4,335 | 1,163 |
| 1995 [3] | 50,502 | 36,806 | 13,697 | 44,840 | 32,341 | 12,500 | 5,662 | 4,465 | 1,197 |
| 1996 [4] | 51,375 | 37,316 | 14,060 | 45,611 | 32,764 | 12,847 | 5,764 | 4,551 | 1,213 |
| 1997 [3] | 51,968 | 37,696 | 14,272 | 46,127 | 33,073 | 13,054 | 5,841 | 4,623 | 1,218 |
| 1998 [4] | 52,476 | 38,048 | 14,427 | 46,539 | 33,346 | 13,193 | 5,937 | 4,702 | 1,235 |
| 1999 [3] | 52,875 | 38,254 | 14,623 | 46,857 | 33,489 | 13,369 | 6,018 | 4,765 | 1,254 |
| 2000 [4] | 53,167 | 38,387 | 14,780 | 47,223 | 33,709 | 13,514 | 5,944 | 4,678 | 1,266 |
| | | | | **Projected** | | | | | |
| 2001 | 53,369 | 38,414 | 14,954 | 47,424 | 33,746 | 13,678 | 5,944 | 4,668 | 1,276 |
| 2002 | 53,566 | 38,416 | 15,150 | 47,613 | 33,756 | 13,857 | 5,953 | 4,660 | 1,292 |
| 2003 | 53,700 | 38,320 | 15,380 | 47,746 | 33,677 | 14,069 | 5,954 | 4,644 | 1,310 |
| 2004 | 53,800 | 38,120 | 15,680 | 47,846 | 33,500 | 14,346 | 5,954 | 4,620 | 1,334 |
| 2005 | 53,866 | 37,917 | 15,948 | 47,912 | 33,315 | 14,597 | 5,954 | 4,603 | 1,351 |
| 2006 | 53,862 | 37,765 | 16,097 | 47,912 | 33,174 | 14,739 | 5,950 | 4,592 | 1,358 |
| 2007 | 53,789 | 37,666 | 16,123 | 47,847 | 33,078 | 14,768 | 5,942 | 4,588 | 1,355 |
| 2008 | 53,652 | 37,661 | 15,991 | 47,719 | 33,069 | 14,649 | 5,933 | 4,592 | 1,341 |
| 2009 | 53,538 | 37,726 | 15,812 | 47,607 | 33,122 | 14,485 | 5,931 | 4,604 | 1,327 |
| 2010 | 53,498 | 37,869 | 15,629 | 47,561 | 33,244 | 14,317 | 5,937 | 4,625 | 1,313 |
| 2011 | 53,538 | 38,039 | 15,500 | 47,586 | 33,389 | 14,197 | 5,952 | 4,649 | 1,303 |
| 2012 | 53,692 | 38,258 | 15,434 | 47,715 | 33,578 | 14,137 | 5,977 | 4,680 | 1,297 |

[1] Includes most kindergarten and some nursery school enrollment.

[2] Private school numbers are interpolated based on data from the 1985 Private School Survey.

[3] Private school numbers are from the Private School Universe Survey.

[4] Private school numbers are interpolated based on data from the Private School Universe Survey.

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools:* Common Core of Data surveys; 1985 Private School Survey; Private School Universe Survey, various years; and National Elementary and Secondary Enrollment Model.

(This table was prepared May 2002.)

**Table 2.—Enrollment in elementary and secondary schools, by organizational level and control of institution, with projections: Fall 1987 to fall 2012**

(In thousands)

| Year | Total | | | Public | | | Private | | |
|---|---|---|---|---|---|---|---|---|---|
| | K–12[1] | Elementary | Secondary | K–12[1] | Elementary | Secondary | K–12[1] | Elementary | Secondary |
| 1987 [2] | 45,487 | 29,447 | 16,040 | 40,008 | 25,215 | 14,793 | 5,479 | 4,232 | 1,247 |
| 1988 [2] | 45,430 | 29,776 | 15,654 | 40,188 | 25,740 | 14,448 | 5,242 | 4,036 | 1,206 |
| 1989 [3] | 45,741 | 30,443 | 15,298 | 40,543 | 26,408 | 14,135 | 5,198 | 4,035 | 1,163 |
| 1990 [4] | 46,451 | 31,134 | 15,317 | 41,217 | 27,050 | 14,167 | 5,234 | 4,084 | 1,150 |
| 1991 [3] | 47,322 | 31,708 | 15,614 | 42,047 | 27,595 | 14,452 | 5,275 | 4,113 | 1,162 |
| 1992 [4] | 48,145 | 32,280 | 15,865 | 42,823 | 28,105 | 14,718 | 5,322 | 4,175 | 1,147 |
| 1993 [3] | 48,813 | 32,741 | 16,071 | 43,465 | 28,526 | 14,939 | 5,348 | 4,215 | 1,132 |
| 1994 [4] | 49,609 | 33,285 | 16,324 | 44,111 | 28,950 | 15,161 | 5,498 | 4,335 | 1,163 |
| 1995 [3] | 50,502 | 33,894 | 16,608 | 44,840 | 29,429 | 15,411 | 5,662 | 4,465 | 1,197 |
| 1996 [4] | 51,375 | 34,486 | 16,889 | 45,611 | 29,935 | 15,676 | 5,764 | 4,551 | 1,213 |
| 1997 [3] | 51,968 | 34,897 | 17,071 | 46,127 | 30,274 | 15,853 | 5,841 | 4,623 | 1,218 |
| 1998 [4] | 52,476 | 35,246 | 17,230 | 46,539 | 30,544 | 15,995 | 5,937 | 4,702 | 1,235 |
| 1999 [3] | 52,875 | 35,518 | 17,358 | 46,857 | 30,753 | 16,104 | 6,018 | 4,765 | 1,254 |
| 2000 [4] | 53,167 | 35,671 | 17,496 | 47,223 | 30,993 | 16,230 | 5,944 | 4,678 | 1,266 |
| | | | | Projected | | | | | |
| 2001 | 53,369 | 35,540 | 17,829 | 47,424 | 30,872 | 16,553 | 5,944 | 4,668 | 1,276 |
| 2002 | 53,566 | 35,471 | 18,095 | 47,613 | 30,810 | 16,803 | 5,953 | 4,660 | 1,292 |
| 2003 | 53,700 | 35,330 | 18,370 | 47,746 | 30,687 | 17,059 | 5,954 | 4,644 | 1,310 |
| 2004 | 53,800 | 35,135 | 18,665 | 47,846 | 30,516 | 17,330 | 5,954 | 4,620 | 1,334 |
| 2005 | 53,866 | 34,957 | 18,908 | 47,912 | 30,355 | 17,557 | 5,954 | 4,603 | 1,351 |
| 2006 | 53,862 | 34,843 | 19,019 | 47,912 | 30,251 | 17,661 | 5,950 | 4,592 | 1,358 |
| 2007 | 53,789 | 34,784 | 19,005 | 47,847 | 30,197 | 17,650 | 5,942 | 4,588 | 1,355 |
| 2008 | 53,652 | 34,810 | 18,842 | 47,719 | 30,218 | 17,501 | 5,933 | 4,592 | 1,341 |
| 2009 | 53,538 | 34,886 | 18,652 | 47,607 | 30,282 | 17,324 | 5,931 | 4,604 | 1,327 |
| 2010 | 53,498 | 35,026 | 18,472 | 47,561 | 30,402 | 17,159 | 5,937 | 4,625 | 1,313 |
| 2011 | 53,538 | 35,196 | 18,342 | 47,586 | 30,547 | 17,040 | 5,952 | 4,649 | 1,303 |
| 2012 | 53,692 | 35,411 | 18,281 | 47,715 | 30,732 | 16,984 | 5,977 | 4,680 | 1,297 |

[1] Includes most kindergarten and some nursery school enrollment.

[2] Private school numbers are interpolated based on data from the 1985 Private School Survey.

[3] Private school numbers are from the Private School Universe Survey.

[4] Private school numbers are interpolated based on data from the Private School Universe Survey.

NOTE: Some data have been revised from previously published figures. For private schools, it was assumed that numbers for elementary are the same as those in table 1 for grades K–8, and numbers for secondary are the same as those in table 1 for grades 9–12. Designation of grades as elementary or secondary varies from school to school. Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; Common Core of Data surveys; 1985 Private School Survey; Private School Universe Survey, various years; and National Elementary and Secondary Enrollment Model.
(This table was prepared May 2002.)

**Table 3.—Enrollment in public elementary and secondary schools, by grade, with projections: Fall 1992 to fall 2012**

(In thousands)

| Year | Total | Kinder-garten[1] | Grade 1 | Grade 2 | Grade 3 | Grade 4 | Grade 5 | Grade 6 | Grade 7 | Grade 8 | Grade 9 | Grade 10 | Grade 11 | Grade 12 | Elementary Unclassified | Secondary Unclassified |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1992 | 42,823 | 3,817 | 3,542 | 3,431 | 3,361 | 3,342 | 3,325 | 3,303 | 3,299 | 3,129 | 3,352 | 3,027 | 2,656 | 2,431 | 539 | 269 |
| 1993 | 43,465 | 3,922 | 3,529 | 3,429 | 3,437 | 3,361 | 3,350 | 3,356 | 3,355 | 3,249 | 3,487 | 3,050 | 2,751 | 2,424 | 515 | 248 |
| 1994 | 44,111 | 4,047 | 3,593 | 3,440 | 3,439 | 3,426 | 3,372 | 3,381 | 3,404 | 3,302 | 3,604 | 3,131 | 2,748 | 2,488 | 494 | 242 |
| 1995 | 44,840 | 4,173 | 3,671 | 3,507 | 3,445 | 3,431 | 3,438 | 3,395 | 3,422 | 3,356 | 3,704 | 3,237 | 2,826 | 2,487 | 502 | 245 |
| 1996 | 45,611 | 4,203 | 3,770 | 3,600 | 3,524 | 3,454 | 3,453 | 3,494 | 3,464 | 3,403 | 3,801 | 3,323 | 2,930 | 2,586 | 401 | 206 |
| 1997 | 46,127 | 4,199 | 3,755 | 3,689 | 3,597 | 3,507 | 3,458 | 3,492 | 3,520 | 3,415 | 3,819 | 3,376 | 2,972 | 2,673 | 442 | 214 |
| 1998 | 46,539 | 4,172 | 3,727 | 3,681 | 3,696 | 3,592 | 3,520 | 3,497 | 3,530 | 3,480 | 3,856 | 3,382 | 3,021 | 2,722 | 451 | 212 |
| 1999 | 46,857 | 4,148 | 3,684 | 3,656 | 3,691 | 3,686 | 3,604 | 3,564 | 3,541 | 3,497 | 3,935 | 3,415 | 3,034 | 2,782 | 418 | 203 |
| 2000 | 47,223 | 4,177 | 3,635 | 3,633 | 3,673 | 3,708 | 3,703 | 3,658 | 3,624 | 3,532 | 3,958 | 3,487 | 3,080 | 2,799 | 366 | 189 |
| | | | | | | | | | Projected | | | | | | | |
| 2001 | 47,424 | 4,062 | 3,598 | 3,569 | 3,644 | 3,676 | 3,722 | 3,752 | 3,710 | 3,597 | 3,988 | 3,516 | 3,136 | 2,830 | 417 | 208 |
| 2002 | 47,613 | 4,071 | 3,559 | 3,533 | 3,580 | 3,646 | 3,690 | 3,771 | 3,805 | 3,683 | 4,061 | 3,542 | 3,162 | 2,882 | 418 | 211 |
| 2003 | 47,746 | 4,071 | 3,568 | 3,495 | 3,544 | 3,582 | 3,660 | 3,738 | 3,825 | 3,777 | 4,158 | 3,607 | 3,186 | 2,905 | 417 | 213 |
| 2004 | 47,846 | 4,072 | 3,567 | 3,503 | 3,505 | 3,547 | 3,596 | 3,709 | 3,792 | 3,796 | 4,264 | 3,693 | 3,244 | 2,927 | 415 | 218 |
| 2005 | 47,912 | 4,083 | 3,568 | 3,502 | 3,514 | 3,508 | 3,560 | 3,643 | 3,761 | 3,763 | 4,286 | 3,787 | 3,321 | 2,980 | 412 | 222 |
| 2006 | 47,912 | 4,098 | 3,577 | 3,504 | 3,513 | 3,516 | 3,521 | 3,607 | 3,695 | 3,733 | 4,249 | 3,807 | 3,406 | 3,052 | 410 | 225 |
| 2007 | 47,847 | 4,116 | 3,589 | 3,512 | 3,514 | 3,515 | 3,529 | 3,568 | 3,658 | 3,667 | 4,215 | 3,773 | 3,424 | 3,130 | 409 | 227 |
| 2008 | 47,719 | 4,138 | 3,605 | 3,524 | 3,523 | 3,517 | 3,528 | 3,576 | 3,618 | 3,631 | 4,141 | 3,743 | 3,394 | 3,146 | 408 | 225 |
| 2009 | 47,607 | 4,165 | 3,625 | 3,540 | 3,535 | 3,525 | 3,530 | 3,575 | 3,627 | 3,591 | 4,099 | 3,678 | 3,367 | 3,118 | 409 | 223 |
| 2010 | 47,561 | 4,198 | 3,648 | 3,559 | 3,550 | 3,537 | 3,539 | 3,577 | 3,626 | 3,600 | 4,055 | 3,641 | 3,308 | 3,094 | 410 | 220 |
| 2011 | 47,586 | 4,235 | 3,675 | 3,582 | 3,570 | 3,553 | 3,551 | 3,585 | 3,628 | 3,599 | 4,064 | 3,601 | 3,275 | 3,039 | 412 | 218 |
| 2012 | 47,715 | 4,280 | 3,710 | 3,608 | 3,593 | 3,572 | 3,566 | 3,598 | 3,636 | 3,601 | 4,063 | 3,610 | 3,239 | 3,009 | 414 | 216 |

[1] Includes most kindergarten and some nursery school enrollment.

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools;* Common Core of Data surveys; and National Elementary and Secondary Enrollment Model. (This table was prepared May 2002.)

**Table 4.—Enrollment in grades K–12 in public elementary and secondary schools, by region and state, with projections: Fall 1994 to fall 2012**

(In thousands)

| Region and state | Actual | | | | | | | Projected | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
| United States | 44,111 | 44,840 | 45,611 | 46,127 | 46,539 | 46,857 | 47,223 | 47,424 | 47,613 | 47,746 |
| Northeast | 7,760 | 7,894 | 8,006 | 8,085 | 8,145 | 8,196 | 8,217 | 8,270 | 8,291 | 8,289 |
| Connecticut | 507 | 518 | 527 | 535 | 545 | 554 | 562 | 563 | 564 | 563 |
| Maine | 213 | 214 | 214 | 213 | 211 | 209 | 207 | 207 | 205 | 204 |
| Massachusetts | 894 | 915 | 934 | 949 | 962 | 971 | 975 | 979 | 981 | 980 |
| New Hampshire | 189 | 194 | 198 | 202 | 205 | 207 | 208 | 208 | 209 | 209 |
| New Jersey | 1,174 | 1,197 | 1,228 | 1,250 | 1,269 | 1,289 | 1,308 | 1,330 | 1,342 | 1,348 |
| New York | 2,766 | 2,813 | 2,843 | 2,862 | 2,877 | 2,888 | 2,882 | 2,891 | 2,895 | 2,891 |
| Pennsylvania | 1,765 | 1,788 | 1,804 | 1,815 | 1,816 | 1,817 | 1,814 | 1,833 | 1,837 | 1,837 |
| Rhode Island | 147 | 150 | 151 | 153 | 155 | 156 | 157 | 157 | 157 | 157 |
| Vermont | 105 | 106 | 106 | 106 | 105 | 105 | 102 | 102 | 101 | 100 |
| Midwest | 10,386 | 10,512 | 10,638 | 10,704 | 10,722 | 10,726 | 10,753 | 10,722 | 10,712 | 10,684 |
| Illinois | 1,916 | 1,944 | 1,973 | 1,998 | 2,012 | 2,028 | 2,049 | 2,064 | 2,072 | 2,077 |
| Indiana | 969 | 977 | 983 | 987 | 989 | 989 | 989 | 990 | 991 | 992 |
| Iowa | 500 | 502 | 503 | 501 | 498 | 497 | 495 | 491 | 489 | 486 |
| Kansas | 461 | 463 | 466 | 469 | 472 | 472 | 471 | 468 | 466 | 463 |
| Michigan | 1,615 | 1,641 | 1,686 | 1,703 | 1,720 | 1,726 | 1,743 | 1,720 | 1,717 | 1,710 |
| Minnesota | 822 | 835 | 847 | 854 | 856 | 854 | 854 | 850 | 847 | 842 |
| Missouri | 879 | 890 | 901 | 911 | 913 | 914 | 913 | 911 | 909 | 907 |
| Nebraska | 287 | 290 | 292 | 293 | 291 | 288 | 286 | 285 | 284 | 283 |
| North Dakota | 119 | 119 | 120 | 119 | 115 | 113 | 109 | 108 | 106 | 104 |
| Ohio | 1,814 | 1,836 | 1,845 | 1,847 | 1,842 | 1,837 | 1,835 | 1,831 | 1,828 | 1,822 |
| South Dakota | 143 | 145 | 143 | 142 | 132 | 131 | 129 | 129 | 127 | 126 |
| Wisconsin | 861 | 870 | 879 | 882 | 880 | 878 | 879 | 877 | 875 | 871 |
| South | 15,851 | 16,118 | 16,373 | 16,563 | 16,713 | 16,842 | 17,008 | 17,090 | 17,166 | 17,231 |
| Alabama | 737 | 746 | 748 | 749 | 748 | 741 | 740 | 742 | 741 | 740 |
| Arkansas | 448 | 453 | 457 | 456 | 452 | 451 | 450 | 449 | 447 | 446 |
| Delaware | 107 | 108 | 111 | 112 | 113 | 113 | 115 | 115 | 116 | 116 |
| District of Columbia | 80 | 80 | 79 | 77 | 72 | 77 | 69 | 68 | 66 | 65 |
| Florida | 2,111 | 2,176 | 2,242 | 2,294 | 2,338 | 2,381 | 2,435 | 2,444 | 2,462 | 2,482 |
| Georgia | 1,271 | 1,311 | 1,347 | 1,376 | 1,401 | 1,423 | 1,445 | 1,459 | 1,473 | 1,485 |
| Kentucky | 658 | 660 | 656 | 669 | 656 | 648 | 666 | 668 | 670 | 671 |
| Louisiana | 798 | 797 | 793 | 777 | 769 | 757 | 743 | 746 | 739 | 734 |
| Maryland | 791 | 806 | 819 | 831 | 842 | 847 | 853 | 862 | 866 | 868 |
| Mississippi | 506 | 506 | 504 | 505 | 502 | 501 | 498 | 499 | 499 | 498 |
| North Carolina | 1,157 | 1,183 | 1,210 | 1,236 | 1,255 | 1,276 | 1,294 | 1,300 | 1,308 | 1,313 |
| Oklahoma | 610 | 616 | 621 | 624 | 628 | 627 | 623 | 610 | 604 | 599 |
| South Carolina | 649 | 646 | 653 | 659 | 665 | 667 | 677 | 677 | 680 | 681 |
| Tennessee | 881 | 894 | 905 | 893 | 905 | 916 | 909 | 916 | 920 | 924 |
| Texas | 3,677 | 3,748 | 3,829 | 3,892 | 3,945 | 3,992 | 4,060 | 4,076 | 4,104 | 4,128 |
| Virginia | 1,061 | 1,080 | 1,096 | 1,111 | 1,124 | 1,134 | 1,145 | 1,176 | 1,190 | 1,199 |
| West Virginia | 311 | 307 | 304 | 301 | 298 | 292 | 286 | 284 | 282 | 280 |
| West | 10,114 | 10,316 | 10,594 | 10,775 | 10,959 | 11,094 | 11,246 | 11,342 | 11,444 | 11,542 |
| Alaska | 127 | 128 | 130 | 132 | 135 | 134 | 133 | 135 | 136 | 137 |
| Arizona | 737 | 744 | 799 | 814 | 848 | 853 | 878 | 890 | 903 | 915 |
| California | 5,407 | 5,536 | 5,686 | 5,804 | 5,926 | 6,039 | 6,142 | 6,201 | 6,267 | 6,326 |
| Colorado | 641 | 656 | 673 | 687 | 699 | 708 | 725 | 729 | 736 | 742 |
| Hawaii | 184 | 187 | 188 | 190 | 188 | 186 | 184 | 188 | 190 | 191 |
| Idaho | 240 | 243 | 245 | 244 | 245 | 245 | 245 | 249 | 251 | 254 |
| Montana | 164 | 166 | 165 | 162 | 160 | 158 | 155 | 156 | 155 | 155 |
| Nevada | 251 | 265 | 282 | 297 | 311 | 326 | 341 | 346 | 355 | 365 |
| New Mexico | 327 | 330 | 333 | 332 | 329 | 324 | 320 | 325 | 327 | 328 |
| Oregon | 522 | 528 | 538 | 541 | 543 | 545 | 546 | 546 | 546 | 546 |
| Utah | 475 | 477 | 482 | 483 | 481 | 480 | 482 | 481 | 482 | 485 |
| Washington | 938 | 957 | 975 | 991 | 998 | 1,004 | 1,005 | 1,006 | 1,007 | 1,009 |
| Wyoming | 100 | 100 | 99 | 97 | 95 | 92 | 90 | 90 | 89 | 89 |

**Table 4.—Enrollment in grades K–12 in public elementary and secondary schools, by region and state, with projections: Fall 1994 to fall 2012—Continued**

(In thousands)

| Region and state | Projected | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
| United States | 47,846 | 47,912 | 47,912 | 47,847 | 47,719 | 47,607 | 47,561 | 47,586 | 47,715 |
| Northeast | 8,276 | 8,244 | 8,192 | 8,124 | 8,046 | 7,974 | 7,916 | 7,870 | 7,849 |
| Connecticut | 561 | 557 | 552 | 547 | 540 | 534 | 529 | 525 | 521 |
| Maine | 202 | 200 | 198 | 197 | 196 | 195 | 195 | 195 | 196 |
| Massachusetts | 977 | 971 | 963 | 952 | 939 | 929 | 919 | 912 | 910 |
| New Hampshire | 209 | 208 | 208 | 207 | 205 | 205 | 204 | 204 | 205 |
| New Jersey | 1,352 | 1,353 | 1,349 | 1,342 | 1,333 | 1,324 | 1,317 | 1,310 | 1,308 |
| New York | 2,887 | 2,875 | 2,854 | 2,830 | 2,801 | 2,775 | 2,754 | 2,737 | 2,727 |
| Pennsylvania | 1,833 | 1,826 | 1,814 | 1,800 | 1,783 | 1,766 | 1,753 | 1,743 | 1,737 |
| Rhode Island | 156 | 156 | 154 | 153 | 151 | 150 | 149 | 148 | 147 |
| Vermont | 100 | 99 | 98 | 98 | 97 | 97 | 97 | 97 | 97 |
| Midwest | 10,659 | 10,636 | 10,603 | 10,556 | 10,491 | 10,433 | 10,391 | 10,363 | 10,360 |
| Illinois | 2,080 | 2,083 | 2,081 | 2,076 | 2,065 | 2,052 | 2,044 | 2,035 | 2,030 |
| Indiana | 994 | 996 | 994 | 990 | 985 | 979 | 974 | 970 | 968 |
| Iowa | 483 | 482 | 480 | 478 | 475 | 472 | 469 | 467 | 467 |
| Kansas | 462 | 461 | 461 | 460 | 460 | 460 | 461 | 463 | 466 |
| Michigan | 1,705 | 1,696 | 1,687 | 1,674 | 1,656 | 1,641 | 1,630 | 1,621 | 1,616 |
| Minnesota | 837 | 834 | 830 | 826 | 821 | 819 | 817 | 817 | 820 |
| Missouri | 905 | 904 | 902 | 898 | 894 | 890 | 886 | 885 | 887 |
| Nebraska | 282 | 282 | 282 | 282 | 281 | 282 | 282 | 284 | 286 |
| North Dakota | 103 | 102 | 101 | 101 | 101 | 101 | 101 | 102 | 103 |
| Ohio | 1,815 | 1,808 | 1,799 | 1,788 | 1,774 | 1,761 | 1,750 | 1,741 | 1,736 |
| South Dakota | 126 | 125 | 126 | 126 | 126 | 127 | 128 | 129 | 130 |
| Wisconsin | 867 | 863 | 861 | 857 | 853 | 850 | 849 | 849 | 852 |
| South | 17,277 | 17,310 | 17,325 | 17,311 | 17,284 | 17,246 | 17,220 | 17,221 | 17,251 |
| Alabama | 740 | 739 | 738 | 736 | 732 | 729 | 727 | 725 | 726 |
| Arkansas | 445 | 444 | 443 | 441 | 438 | 435 | 433 | 432 | 431 |
| Delaware | 116 | 116 | 116 | 116 | 116 | 115 | 115 | 114 | 114 |
| District of Columbia | 64 | 63 | 63 | 62 | 62 | 62 | 62 | 63 | 64 |
| Florida | 2,484 | 2,488 | 2,485 | 2,477 | 2,469 | 2,456 | 2,445 | 2,441 | 2,441 |
| Georgia | 1,497 | 1,505 | 1,510 | 1,513 | 1,511 | 1,511 | 1,511 | 1,513 | 1,517 |
| Kentucky | 672 | 673 | 674 | 674 | 672 | 668 | 665 | 660 | 655 |
| Louisiana | 734 | 729 | 726 | 723 | 725 | 721 | 721 | 721 | 723 |
| Maryland | 869 | 867 | 865 | 861 | 857 | 852 | 851 | 850 | 852 |
| Mississippi | 498 | 498 | 498 | 497 | 494 | 492 | 489 | 487 | 485 |
| North Carolina | 1,316 | 1,315 | 1,310 | 1,301 | 1,291 | 1,279 | 1,268 | 1,259 | 1,252 |
| Oklahoma | 594 | 591 | 588 | 584 | 581 | 579 | 578 | 578 | 580 |
| South Carolina | 681 | 680 | 679 | 675 | 673 | 668 | 665 | 662 | 661 |
| Tennessee | 928 | 930 | 931 | 929 | 926 | 923 | 921 | 920 | 922 |
| Texas | 4,155 | 4,182 | 4,210 | 4,236 | 4,258 | 4,280 | 4,302 | 4,331 | 4,366 |
| Virginia | 1,206 | 1,211 | 1,215 | 1,214 | 1,210 | 1,207 | 1,203 | 1,201 | 1,201 |
| West Virginia | 278 | 277 | 275 | 273 | 271 | 268 | 266 | 264 | 262 |
| West | 11,634 | 11,721 | 11,792 | 11,855 | 11,898 | 11,954 | 12,033 | 12,132 | 12,256 |
| Alaska | 138 | 139 | 141 | 142 | 143 | 145 | 147 | 150 | 153 |
| Arizona | 926 | 936 | 944 | 949 | 952 | 954 | 955 | 958 | 960 |
| California | 6,385 | 6,435 | 6,474 | 6,509 | 6,533 | 6,567 | 6,622 | 6,685 | 6,768 |
| Colorado | 747 | 752 | 756 | 759 | 760 | 762 | 763 | 764 | 767 |
| Hawaii | 193 | 195 | 197 | 199 | 201 | 203 | 207 | 210 | 214 |
| Idaho | 258 | 261 | 265 | 268 | 271 | 275 | 279 | 283 | 287 |
| Montana | 154 | 155 | 155 | 156 | 157 | 158 | 160 | 161 | 164 |
| Nevada | 370 | 375 | 379 | 380 | 379 | 377 | 374 | 371 | 368 |
| New Mexico | 331 | 334 | 337 | 340 | 344 | 349 | 354 | 360 | 366 |
| Oregon | 546 | 546 | 547 | 546 | 546 | 546 | 547 | 549 | 553 |
| Utah | 488 | 493 | 497 | 502 | 507 | 512 | 516 | 522 | 528 |
| Washington | 1,009 | 1,010 | 1,012 | 1,012 | 1,011 | 1,012 | 1,014 | 1,019 | 1,028 |
| Wyoming | 89 | 90 | 90 | 92 | 93 | 94 | 96 | 98 | 101 |

NOTE: Some data have been revised from previously published figures. Includes most kindergarten and some nursery school enrollment. Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys and State Public Elementary and Secondary Enrollment Model. (This table was prepared May 2002.)

**Table 5.—Percent change in grades K–12 enrollment in public schools, by region and state, with projections: Fall 1994 to fall 2012**

| Region and state | Actual | Projected | | |
|---|---|---|---|---|
| | 1994 to 2000 | 2000 to 2006 | 2006 to 2012 | 2000 to 2012 |
| United States | 7.1 | 1.5 | -0.4 | 1.0 |
| Northeast | 5.9 | -0.3 | -4.2 | -4.5 |
| Connecticut | 10.9 | -1.7 | -5.6 | -7.2 |
| Maine | -2.6 | -4.2 | -1.4 | -5.5 |
| Massachusetts | 9.1 | -1.2 | -5.5 | -6.7 |
| New Hampshire | 10.1 | -0.3 | -1.5 | -1.8 |
| New Jersey | 11.4 | 3.2 | -3.1 | -0.0 |
| New York | 4.2 | -1.0 | -4.5 | -5.4 |
| Pennsylvania | 2.8 | 0.0 | -4.2 | -4.2 |
| Rhode Island | 6.7 | -1.9 | -4.6 | -6.4 |
| Vermont | -2.4 | -3.7 | -1.2 | -4.8 |
| Midwest | 3.5 | -1.4 | -2.3 | -3.7 |
| Illinois | 6.9 | 1.6 | -2.5 | -0.9 |
| Indiana | 2.1 | 0.5 | -2.6 | -2.1 |
| Iowa | -1.1 | -3.0 | -2.8 | -5.7 |
| Kansas | 2.1 | -2.1 | 1.1 | -1.0 |
| Michigan | 8.0 | -3.3 | -4.2 | -7.3 |
| Minnesota | 4.0 | -2.8 | -1.2 | -4.0 |
| Missouri | 3.9 | -1.2 | -1.6 | -2.8 |
| Nebraska | -0.3 | -1.6 | 1.4 | -0.2 |
| North Dakota | -8.5 | -7.1 | 1.1 | -6.1 |
| Ohio | 1.1 | -1.9 | -3.5 | -5.4 |
| South Dakota | -10.4 | -2.4 | 3.4 | 1.0 |
| Wisconsin | 2.2 | -2.1 | -1.1 | -3.1 |
| South | 7.3 | 1.9 | -0.4 | 1.4 |
| Alabama | 0.5 | -0.3 | -1.6 | -2.0 |
| Arkansas | 0.5 | -1.5 | -2.8 | -4.3 |
| Delaware | 7.4 | 1.2 | -2.2 | -1.0 |
| District of Columbia | -14.3 | -8.7 | 2.1 | -6.8 |
| Florida | 15.3 | 2.1 | -1.8 | 0.3 |
| Georgia | 13.7 | 4.5 | 0.4 | 5.0 |
| Kentucky | 1.2 | 1.2 | -2.8 | -1.7 |
| Louisiana | -6.9 | -2.3 | -0.4 | -2.7 |
| Maryland | 7.8 | 1.4 | -1.5 | -0.1 |
| Mississippi | -1.6 | 0.0 | -2.5 | -2.5 |
| North Carolina | 11.8 | 1.3 | -4.4 | -3.2 |
| Oklahoma | 2.2 | -5.7 | -1.2 | -6.9 |
| South Carolina | 4.4 | 0.2 | -2.6 | -2.4 |
| Tennessee | 3.2 | 2.4 | -1.0 | 1.3 |
| Texas | 10.4 | 3.7 | 3.7 | 7.5 |
| Virginia | 7.9 | 6.1 | -1.2 | 4.9 |
| West Virginia | -7.8 | -3.9 | -4.6 | -8.4 |
| West | 11.2 | 4.9 | 3.9 | 9.0 |
| Alaska | 5.0 | 5.4 | 9.0 | 14.9 |
| Arizona | 19.0 | 7.5 | 1.8 | 9.4 |
| California | 13.6 | 5.4 | 4.5 | 10.2 |
| Colorado | 13.1 | 4.3 | 1.5 | 5.9 |
| Hawaii | 0.3 | 6.8 | 8.9 | 16.3 |
| Idaho | 1.9 | 8.0 | 8.4 | 17.0 |
| Montana | -5.8 | 0.3 | 5.4 | 5.7 |
| Nevada | 35.9 | 11.1 | -2.9 | 7.9 |
| New Mexico | -2.1 | 5.2 | 8.7 | 14.3 |
| Oregon | 4.7 | 0.1 | 1.1 | 1.2 |
| Utah | 1.5 | 3.3 | 6.1 | 9.6 |
| Washington | 7.1 | 0.7 | 1.6 | 2.3 |
| Wyoming | -10.3 | 0.6 | 11.4 | 12.1 |

NOTE: Calculations are based on unrounded numbers. Includes most kindergarten and some nursery school enrollment. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys and State Public Elementary and Secondary Enrollment Model. (This table was prepared May 2002.)

**Table 6.—Enrollment in grades K–8 in public schools, by region and state, with projections: Fall 1994 to fall 2012**

(In thousands)

| Region and state | Actual | | | | | | | Projected | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
| United States | 31,898 | 32,341 | 32,764 | 33,073 | 33,346 | 33,489 | 33,709 | 33,746 | 33,756 | 33,677 |
| Northeast | 5,568 | 5,659 | 5,729 | 5,774 | 5,820 | 5,841 | 5,826 | 5,828 | 5,798 | 5,748 |
| Connecticut | 376 | 384 | 389 | 394 | 399 | 404 | 406 | 402 | 399 | 394 |
| Maine | 156 | 156 | 156 | 153 | 151 | 149 | 146 | 145 | 144 | 142 |
| Massachusetts | 659 | 675 | 688 | 696 | 705 | 706 | 703 | 699 | 695 | 686 |
| New Hampshire | 139 | 142 | 144 | 145 | 147 | 147 | 147 | 146 | 145 | 145 |
| New Jersey | 862 | 880 | 903 | 921 | 936 | 954 | 953 | 960 | 959 | 953 |
| New York | 1,949 | 1,980 | 2,000 | 2,011 | 2,028 | 2,034 | 2,029 | 2,029 | 2,017 | 1,999 |
| Pennsylvania | 1,244 | 1,257 | 1,264 | 1,266 | 1,267 | 1,262 | 1,258 | 1,264 | 1,258 | 1,249 |
| Rhode Island | 108 | 110 | 110 | 112 | 112 | 114 | 114 | 113 | 112 | 111 |
| Vermont | 76 | 75 | 75 | 74 | 73 | 72 | 70 | 70 | 70 | 69 |
| Midwest | 7,387 | 7,448 | 7,504 | 7,554 | 7,565 | 7,551 | 7,557 | 7,526 | 7,505 | 7,465 |
| Illinois | 1,368 | 1,390 | 1,412 | 1,438 | 1,452 | 1,462 | 1,474 | 1,477 | 1,477 | 1,474 |
| Indiana | 679 | 684 | 689 | 693 | 697 | 699 | 703 | 706 | 706 | 703 |
| Iowa | 346 | 344 | 342 | 338 | 337 | 336 | 334 | 332 | 331 | 329 |
| Kansas | 329 | 329 | 328 | 328 | 327 | 326 | 323 | 322 | 321 | 320 |
| Michigan | 1,170 | 1,192 | 1,212 | 1,236 | 1,245 | 1,245 | 1,256 | 1,234 | 1,229 | 1,219 |
| Minnesota | 581 | 586 | 589 | 588 | 587 | 580 | 578 | 574 | 570 | 565 |
| Missouri | 628 | 636 | 643 | 650 | 651 | 649 | 645 | 643 | 642 | 639 |
| Nebraska | 203 | 203 | 203 | 202 | 200 | 197 | 195 | 196 | 195 | 195 |
| North Dakota | 83 | 82 | 82 | 80 | 77 | 75 | 72 | 72 | 71 | 71 |
| Ohio | 1,295 | 1,297 | 1,299 | 1,299 | 1,301 | 1,296 | 1,294 | 1,290 | 1,285 | 1,276 |
| South Dakota | 102 | 101 | 99 | 98 | 91 | 90 | 88 | 89 | 88 | 88 |
| Wisconsin | 601 | 603 | 605 | 604 | 601 | 596 | 595 | 591 | 588 | 585 |
| South | 11,604 | 11,772 | 11,911 | 12,022 | 12,127 | 12,191 | 12,315 | 12,331 | 12,348 | 12,331 |
| Alabama | 535 | 539 | 540 | 541 | 542 | 539 | 539 | 541 | 541 | 540 |
| Arkansas | 319 | 322 | 324 | 322 | 319 | 318 | 318 | 318 | 318 | 316 |
| Delaware | 77 | 77 | 78 | 79 | 80 | 80 | 81 | 81 | 81 | 81 |
| District of Columbia | 62 | 62 | 61 | 60 | 57 | 60 | 54 | 53 | 53 | 51 |
| Florida | 1,570 | 1,614 | 1,653 | 1,680 | 1,704 | 1,725 | 1,760 | 1,752 | 1,750 | 1,741 |
| Georgia | 935 | 966 | 991 | 1,011 | 1,029 | 1,044 | 1,060 | 1,066 | 1,072 | 1,074 |
| Kentucky | 467 | 468 | 466 | 474 | 464 | 459 | 472 | 473 | 475 | 476 |
| Louisiana | 584 | 580 | 575 | 564 | 558 | 548 | 547 | 544 | 541 | 537 |
| Maryland | 581 | 590 | 597 | 602 | 607 | 607 | 609 | 611 | 610 | 607 |
| Mississippi | 367 | 366 | 364 | 365 | 365 | 365 | 364 | 367 | 368 | 367 |
| North Carolina | 847 | 871 | 886 | 906 | 921 | 935 | 945 | 945 | 943 | 936 |
| Oklahoma | 443 | 446 | 445 | 445 | 448 | 447 | 445 | 434 | 431 | 427 |
| South Carolina | 469 | 463 | 468 | 473 | 478 | 484 | 493 | 489 | 488 | 485 |
| Tennessee | 641 | 651 | 657 | 653 | 665 | 664 | 668 | 673 | 676 | 675 |
| Texas | 2,721 | 2,757 | 2,800 | 2,832 | 2,868 | 2,896 | 2,943 | 2,943 | 2,959 | 2,973 |
| Virginia | 774 | 788 | 796 | 807 | 815 | 817 | 816 | 839 | 845 | 846 |
| West Virginia | 213 | 211 | 209 | 207 | 206 | 203 | 201 | 200 | 200 | 198 |
| West | 7,340 | 7,462 | 7,620 | 7,723 | 7,834 | 7,904 | 8,012 | 8,061 | 8,105 | 8,133 |
| Alaska | 94 | 93 | 94 | 96 | 97 | 96 | 94 | 96 | 97 | 97 |
| Arizona | 543 | 549 | 588 | 596 | 623 | 624 | 641 | 647 | 654 | 658 |
| California | 3,956 | 4,041 | 4,129 | 4,196 | 4,270 | 4,337 | 4,409 | 4,434 | 4,457 | 4,470 |
| Colorado | 470 | 479 | 487 | 494 | 501 | 507 | 517 | 517 | 520 | 522 |
| Hawaii | 134 | 136 | 136 | 136 | 135 | 133 | 132 | 136 | 137 | 139 |
| Idaho | 169 | 170 | 169 | 169 | 169 | 169 | 170 | 174 | 176 | 179 |
| Montana | 117 | 116 | 115 | 112 | 110 | 107 | 105 | 106 | 107 | 107 |
| Nevada | 185 | 196 | 208 | 219 | 229 | 240 | 251 | 252 | 255 | 256 |
| New Mexico | 229 | 229 | 230 | 236 | 232 | 229 | 225 | 230 | 232 | 234 |
| Oregon | 372 | 376 | 380 | 381 | 380 | 378 | 379 | 379 | 379 | 377 |
| Utah | 328 | 328 | 328 | 329 | 329 | 329 | 333 | 334 | 336 | 339 |
| Washington | 673 | 680 | 687 | 694 | 696 | 695 | 694 | 694 | 694 | 692 |
| Wyoming | 70 | 69 | 67 | 66 | 64 | 62 | 60 | 61 | 61 | 62 |

**Table 6.—Enrollment in grades K–8 in public schools, by region and state, with projections: Fall 1994 to fall 2012—Continued**

(In thousands)

| Region and state | Projected | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
| United States | 33,500 | 33,315 | 33,174 | 33,078 | 33,069 | 33,122 | 33,244 | 33,389 | 33,578 |
| Northeast | 5,680 | 5,613 | 5,553 | 5,502 | 5,473 | 5,451 | 5,429 | 5,413 | 5,405 |
| Connecticut | 388 | 382 | 376 | 371 | 366 | 365 | 364 | 363 | 364 |
| Maine | 141 | 140 | 139 | 139 | 140 | 141 | 141 | 141 | 140 |
| Massachusetts | 676 | 666 | 656 | 648 | 646 | 644 | 640 | 637 | 635 |
| New Hampshire | 143 | 143 | 142 | 142 | 142 | 143 | 143 | 142 | 142 |
| New Jersey | 944 | 936 | 927 | 919 | 914 | 911 | 910 | 909 | 911 |
| New York | 1,975 | 1,950 | 1,929 | 1,910 | 1,897 | 1,885 | 1,877 | 1,870 | 1,868 |
| Pennsylvania | 1,235 | 1,221 | 1,209 | 1,199 | 1,194 | 1,189 | 1,183 | 1,177 | 1,173 |
| Rhode Island | 109 | 108 | 106 | 105 | 105 | 105 | 104 | 104 | 104 |
| Vermont | 69 | 68 | 68 | 69 | 69 | 69 | 69 | 69 | 68 |
| Midwest | 7,400 | 7,338 | 7,289 | 7,250 | 7,235 | 7,226 | 7,225 | 7,228 | 7,237 |
| Illinois | 1,462 | 1,449 | 1,439 | 1,428 | 1,418 | 1,412 | 1,413 | 1,415 | 1,418 |
| Indiana | 699 | 693 | 689 | 685 | 682 | 680 | 679 | 678 | 677 |
| Iowa | 326 | 323 | 320 | 319 | 318 | 318 | 318 | 318 | 318 |
| Kansas | 319 | 318 | 318 | 319 | 321 | 322 | 323 | 325 | 327 |
| Michigan | 1,202 | 1,188 | 1,176 | 1,166 | 1,159 | 1,156 | 1,152 | 1,149 | 1,147 |
| Minnesota | 560 | 556 | 553 | 552 | 552 | 554 | 556 | 559 | 562 |
| Missouri | 634 | 629 | 623 | 621 | 622 | 623 | 624 | 625 | 627 |
| Nebraska | 194 | 194 | 194 | 195 | 196 | 197 | 198 | 199 | 200 |
| North Dakota | 70 | 70 | 70 | 71 | 71 | 72 | 72 | 72 | 73 |
| Ohio | 1,264 | 1,251 | 1,241 | 1,231 | 1,226 | 1,222 | 1,219 | 1,216 | 1,214 |
| South Dakota | 88 | 89 | 89 | 90 | 92 | 92 | 93 | 93 | 94 |
| Wisconsin | 581 | 578 | 575 | 575 | 576 | 577 | 578 | 579 | 581 |
| South | 12,292 | 12,232 | 12,179 | 12,140 | 12,123 | 12,124 | 12,169 | 12,219 | 12,281 |
| Alabama | 536 | 533 | 531 | 529 | 529 | 527 | 526 | 525 | 525 |
| Arkansas | 313 | 310 | 308 | 307 | 306 | 305 | 304 | 304 | 303 |
| Delaware | 81 | 81 | 80 | 80 | 79 | 79 | 79 | 78 | 78 |
| District of Columbia | 50 | 49 | 49 | 48 | 49 | 50 | 51 | 51 | 53 |
| Florida | 1,730 | 1,716 | 1,702 | 1,689 | 1,677 | 1,678 | 1,687 | 1,697 | 1,710 |
| Georgia | 1,071 | 1,070 | 1,068 | 1,066 | 1,066 | 1,066 | 1,070 | 1,075 | 1,080 |
| Kentucky | 475 | 473 | 471 | 467 | 462 | 459 | 457 | 455 | 453 |
| Louisiana | 540 | 534 | 531 | 530 | 531 | 531 | 533 | 535 | 537 |
| Maryland | 602 | 597 | 594 | 592 | 592 | 591 | 592 | 592 | 594 |
| Mississippi | 365 | 363 | 361 | 359 | 359 | 356 | 355 | 354 | 353 |
| North Carolina | 927 | 917 | 906 | 895 | 885 | 880 | 879 | 878 | 879 |
| Oklahoma | 422 | 418 | 414 | 413 | 413 | 415 | 417 | 420 | 423 |
| South Carolina | 485 | 481 | 476 | 472 | 471 | 470 | 469 | 468 | 468 |
| Tennessee | 672 | 668 | 665 | 664 | 665 | 663 | 664 | 664 | 664 |
| Texas | 2,982 | 2,990 | 2,997 | 3,006 | 3,020 | 3,039 | 3,074 | 3,110 | 3,149 |
| Virginia | 842 | 838 | 833 | 830 | 828 | 824 | 824 | 824 | 826 |
| West Virginia | 197 | 195 | 193 | 192 | 191 | 190 | 188 | 186 | 185 |
| West | 8,128 | 8,132 | 8,153 | 8,186 | 8,238 | 8,320 | 8,420 | 8,531 | 8,656 |
| Alaska | 98 | 99 | 100 | 102 | 104 | 106 | 108 | 110 | 112 |
| Arizona | 659 | 659 | 658 | 658 | 656 | 658 | 664 | 670 | 677 |
| California | 4,460 | 4,456 | 4,468 | 4,481 | 4,508 | 4,566 | 4,631 | 4,707 | 4,796 |
| Colorado | 523 | 523 | 523 | 523 | 524 | 526 | 529 | 533 | 536 |
| Hawaii | 140 | 141 | 143 | 146 | 149 | 151 | 153 | 155 | 158 |
| Idaho | 181 | 184 | 187 | 190 | 194 | 196 | 198 | 200 | 202 |
| Montana | 107 | 108 | 109 | 111 | 114 | 115 | 115 | 116 | 117 |
| Nevada | 256 | 254 | 251 | 248 | 244 | 243 | 245 | 246 | 247 |
| New Mexico | 236 | 239 | 242 | 247 | 252 | 255 | 259 | 262 | 266 |
| Oregon | 375 | 374 | 373 | 374 | 376 | 378 | 381 | 384 | 386 |
| Utah | 342 | 345 | 348 | 353 | 357 | 360 | 365 | 369 | 373 |
| Washington | 689 | 687 | 685 | 687 | 691 | 696 | 701 | 708 | 715 |
| Wyoming | 63 | 64 | 65 | 67 | 69 | 70 | 71 | 72 | 74 |

NOTE: Some data have been revised from previously published figures. Includes most kindergarten and some nursery school enrollment. Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys and State Public Elementary and Secondary Enrollment Model. (This table was prepared May 2002.)

**Table 7.—Percent change in grades K–8 enrollment in public schools, by region and state, with projections: Fall 1994 to fall 2012**

| Region and state | Actual | Projected | | |
|---|---|---|---|---|
| | 1994 to 2000 | 2000 to 2006 | 2006 to 2012 | 2000 to 2012 |
| United States | 5.7 | -1.6 | 1.2 | -0.4 |
| Northeast | 4.6 | -4.7 | -2.7 | -7.2 |
| Connecticut | 8.2 | -7.4 | -3.3 | -10.5 |
| Maine | -6.5 | -4.4 | 0.8 | -3.6 |
| Massachusetts | 6.7 | -6.6 | -3.2 | -9.6 |
| New Hampshire | 6.0 | -3.6 | 0.3 | -3.3 |
| New Jersey | 10.5 | -2.7 | -1.8 | -4.4 |
| New York | 4.1 | -5.0 | -3.2 | -8.0 |
| Pennsylvania | 1.1 | -3.9 | -3.0 | -6.8 |
| Rhode Island | 5.2 | -6.3 | -2.2 | -8.4 |
| Vermont | -7.0 | -2.7 | 0.1 | -2.6 |
| Midwest | 2.3 | -3.5 | -0.7 | -4.2 |
| Illinois | 7.7 | -2.4 | -1.5 | -3.8 |
| Indiana | 3.6 | -2.1 | -1.7 | -3.8 |
| Iowa | -3.5 | -4.0 | -0.7 | -4.7 |
| Kansas | -1.8 | -1.6 | 2.8 | 1.2 |
| Michigan | 7.3 | -6.4 | -2.4 | -8.6 |
| Minnesota | -0.6 | -4.3 | 1.6 | -2.8 |
| Missouri | 2.6 | -3.3 | 0.6 | -2.7 |
| Nebraska | -3.7 | -0.7 | 3.0 | 2.3 |
| North Dakota | -13.2 | -3.0 | 3.5 | 0.4 |
| Ohio | -0.1 | -4.1 | -2.2 | -6.2 |
| South Dakota | -13.7 | 1.8 | 4.6 | 6.5 |
| Wisconsin | -1.1 | -3.2 | 0.9 | -2.4 |
| South | 6.1 | -1.1 | 0.8 | -0.3 |
| Alabama | 0.7 | -1.5 | -1.1 | -2.6 |
| Arkansas | -0.4 | -3.1 | -1.5 | -4.6 |
| Delaware | 5.2 | -0.6 | -2.6 | -3.1 |
| District of Columbia | -13.6 | -9.5 | 8.1 | -2.2 |
| Florida | 12.1 | -3.3 | 0.5 | -2.8 |
| Georgia | 13.4 | 0.7 | 1.2 | 1.9 |
| Kentucky | 1.0 | -0.1 | -3.9 | -4.0 |
| Louisiana | -6.4 | -2.8 | 1.1 | -1.7 |
| Maryland | 4.9 | -2.5 | 0.1 | -2.4 |
| Mississippi | -0.8 | -0.8 | -2.3 | -3.1 |
| North Carolina | 11.6 | -4.2 | -3.0 | -7.1 |
| Oklahoma | 0.6 | -6.9 | 2.1 | -5.0 |
| South Carolina | 5.2 | -3.5 | -1.7 | -5.1 |
| Tennessee | 4.3 | -0.5 | 0.0 | -0.6 |
| Texas | 8.2 | 1.8 | 5.1 | 7.0 |
| Virginia | 5.4 | 2.1 | -0.9 | 1.2 |
| West Virginia | -5.5 | -4.1 | -4.3 | -8.2 |
| West | 9.2 | 1.8 | 6.2 | 8.0 |
| Alaska | 0.8 | 5.4 | 12.0 | 18.1 |
| Arizona | 18.0 | 2.7 | 2.8 | 5.6 |
| California | 11.5 | 1.3 | 7.3 | 8.8 |
| Colorado | 10.0 | 1.2 | 2.6 | 3.8 |
| Hawaii | -1.0 | 8.4 | 9.9 | 19.1 |
| Idaho | 0.9 | 9.6 | 8.1 | 18.5 |
| Montana | -9.9 | 4.0 | 6.6 | 10.8 |
| Nevada | 35.3 | 0.3 | -1.9 | -1.6 |
| New Mexico | -1.9 | 7.7 | 9.7 | 18.1 |
| Oregon | 2.0 | -1.6 | 3.5 | 1.9 |
| Utah | 1.5 | 4.4 | 7.1 | 11.9 |
| Washington | 3.2 | -1.3 | 4.3 | 2.9 |
| Wyoming | -14.2 | 8.0 | 13.2 | 22.2 |

NOTE: Calculations are based on unrounded numbers. Includes most kindergarten and some nursery school enrollment. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys and State Public Elementary and Secondary Enrollment Model. (This table was prepared May 2002.)

**Table 8.—Enrollment in grades 9–12 in public schools, by region and state, with projections: Fall 1994 to fall 2012**

(In thousands)

| Region and state | Actual | | | | | | | Projected | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
| United States | 12,213 | 12,500 | 12,847 | 13,054 | 13,193 | 13,369 | 13,514 | 13,678 | 13,857 | 14,069 |
| Northeast | 2,192 | 2,235 | 2,277 | 2,311 | 2,326 | 2,355 | 2,391 | 2,442 | 2,493 | 2,541 |
| Connecticut | 131 | 134 | 138 | 141 | 145 | 150 | 156 | 161 | 165 | 169 |
| Maine | 57 | 58 | 58 | 59 | 60 | 60 | 61 | 61 | 61 | 61 |
| Massachusetts | 235 | 240 | 246 | 253 | 258 | 265 | 273 | 279 | 286 | 293 |
| New Hampshire | 50 | 52 | 54 | 56 | 58 | 60 | 61 | 63 | 64 | 65 |
| New Jersey | 312 | 317 | 325 | 329 | 333 | 335 | 355 | 370 | 383 | 396 |
| New York | 817 | 833 | 843 | 851 | 849 | 854 | 853 | 862 | 878 | 892 |
| Pennsylvania | 521 | 531 | 541 | 549 | 549 | 555 | 556 | 569 | 579 | 589 |
| Rhode Island | 40 | 40 | 41 | 42 | 42 | 43 | 44 | 44 | 45 | 46 |
| Vermont | 29 | 30 | 31 | 32 | 32 | 32 | 32 | 32 | 31 | 31 |
| Midwest | 2,999 | 3,064 | 3,134 | 3,151 | 3,156 | 3,175 | 3,196 | 3,197 | 3,207 | 3,219 |
| Illinois | 548 | 553 | 561 | 560 | 560 | 565 | 575 | 587 | 595 | 603 |
| Indiana | 290 | 293 | 294 | 294 | 292 | 289 | 286 | 284 | 285 | 289 |
| Iowa | 155 | 158 | 161 | 163 | 162 | 161 | 161 | 159 | 158 | 157 |
| Kansas | 132 | 134 | 138 | 141 | 145 | 146 | 147 | 145 | 144 | 143 |
| Michigan | 445 | 450 | 473 | 467 | 475 | 481 | 488 | 486 | 488 | 491 |
| Minnesota | 240 | 249 | 258 | 266 | 270 | 274 | 277 | 276 | 277 | 276 |
| Missouri | 250 | 254 | 257 | 261 | 263 | 265 | 268 | 267 | 268 | 268 |
| Nebraska | 84 | 87 | 89 | 91 | 91 | 91 | 91 | 90 | 89 | 88 |
| North Dakota | 36 | 37 | 38 | 38 | 38 | 38 | 37 | 36 | 35 | 34 |
| Ohio | 519 | 539 | 546 | 548 | 541 | 540 | 541 | 541 | 543 | 546 |
| South Dakota | 42 | 43 | 44 | 45 | 42 | 41 | 41 | 40 | 39 | 38 |
| Wisconsin | 259 | 267 | 274 | 278 | 279 | 281 | 285 | 286 | 286 | 286 |
| South | 4,247 | 4,346 | 4,462 | 4,541 | 4,586 | 4,650 | 4,693 | 4,759 | 4,818 | 4,901 |
| Alabama | 201 | 207 | 208 | 208 | 206 | 202 | 201 | 201 | 200 | 200 |
| Arkansas | 128 | 131 | 133 | 134 | 133 | 133 | 132 | 131 | 130 | 130 |
| Delaware | 30 | 31 | 33 | 33 | 33 | 33 | 34 | 34 | 35 | 35 |
| District of Columbia | 18 | 18 | 18 | 17 | 15 | 17 | 15 | 15 | 14 | 14 |
| Florida | 542 | 563 | 589 | 614 | 634 | 656 | 675 | 693 | 712 | 741 |
| Georgia | 336 | 345 | 356 | 365 | 372 | 379 | 385 | 393 | 401 | 411 |
| Kentucky | 191 | 192 | 190 | 195 | 191 | 190 | 194 | 195 | 195 | 195 |
| Louisiana | 214 | 217 | 218 | 213 | 210 | 209 | 197 | 201 | 198 | 196 |
| Maryland | 210 | 215 | 222 | 229 | 235 | 239 | 244 | 251 | 256 | 261 |
| Mississippi | 139 | 140 | 140 | 140 | 137 | 135 | 134 | 132 | 131 | 131 |
| North Carolina | 309 | 312 | 324 | 330 | 334 | 341 | 348 | 356 | 365 | 377 |
| Oklahoma | 167 | 171 | 175 | 179 | 181 | 180 | 178 | 175 | 173 | 172 |
| South Carolina | 180 | 182 | 185 | 187 | 187 | 183 | 184 | 188 | 192 | 196 |
| Tennessee | 241 | 243 | 248 | 240 | 241 | 252 | 241 | 242 | 244 | 249 |
| Texas | 957 | 991 | 1,029 | 1,059 | 1,077 | 1,096 | 1,117 | 1,132 | 1,145 | 1,154 |
| Virginia | 286 | 292 | 300 | 304 | 309 | 317 | 329 | 337 | 345 | 353 |
| West Virginia | 98 | 96 | 95 | 94 | 92 | 88 | 85 | 83 | 83 | 82 |
| West | 2,775 | 2,854 | 2,974 | 3,051 | 3,125 | 3,189 | 3,234 | 3,281 | 3,339 | 3,409 |
| Alaska | 33 | 34 | 36 | 36 | 38 | 39 | 39 | 39 | 40 | 40 |
| Arizona | 195 | 195 | 211 | 218 | 226 | 229 | 237 | 242 | 249 | 257 |
| California | 1,452 | 1,495 | 1,557 | 1,608 | 1,656 | 1,702 | 1,733 | 1,767 | 1,810 | 1,856 |
| Colorado | 171 | 177 | 186 | 193 | 198 | 202 | 208 | 212 | 216 | 220 |
| Hawaii | 50 | 52 | 51 | 53 | 53 | 53 | 52 | 52 | 52 | 53 |
| Idaho | 72 | 74 | 76 | 76 | 76 | 77 | 75 | 74 | 74 | 75 |
| Montana | 48 | 49 | 50 | 50 | 50 | 50 | 50 | 49 | 48 | 47 |
| Nevada | 65 | 69 | 74 | 78 | 82 | 86 | 90 | 94 | 100 | 109 |
| New Mexico | 98 | 100 | 103 | 96 | 96 | 96 | 95 | 96 | 95 | 94 |
| Oregon | 150 | 152 | 158 | 160 | 163 | 167 | 167 | 167 | 167 | 169 |
| Utah | 146 | 149 | 154 | 154 | 153 | 151 | 148 | 146 | 146 | 145 |
| Washington | 265 | 277 | 287 | 297 | 302 | 309 | 310 | 312 | 313 | 316 |
| Wyoming | 30 | 31 | 32 | 32 | 31 | 30 | 30 | 29 | 28 | 27 |

**Table 8.—Enrollment in grades 9–12 in public schools, by region and state, with projections: Fall 1994 to fall 2012—Continued**

(In thousands)

| Region and state | Projected | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
| United States | 14,346 | 14,597 | 14,739 | 14,768 | 14,649 | 14,485 | 14,317 | 14,197 | 14,137 |
| Northeast | 2,596 | 2,631 | 2,639 | 2,622 | 2,573 | 2,523 | 2,487 | 2,458 | 2,444 |
| Connecticut | 173 | 175 | 176 | 176 | 174 | 170 | 165 | 161 | 158 |
| Maine | 61 | 60 | 59 | 58 | 56 | 54 | 54 | 54 | 55 |
| Massachusetts | 301 | 305 | 307 | 304 | 293 | 285 | 279 | 275 | 275 |
| New Hampshire | 66 | 66 | 66 | 65 | 63 | 62 | 62 | 62 | 62 |
| New Jersey | 407 | 417 | 422 | 422 | 419 | 413 | 407 | 401 | 397 |
| New York | 912 | 925 | 926 | 919 | 904 | 889 | 877 | 867 | 860 |
| Pennsylvania | 598 | 605 | 606 | 602 | 589 | 577 | 571 | 566 | 565 |
| Rhode Island | 47 | 48 | 48 | 47 | 47 | 45 | 44 | 44 | 43 |
| Vermont | 31 | 30 | 30 | 29 | 28 | 27 | 28 | 28 | 29 |
| Midwest | 3,259 | 3,298 | 3,314 | 3,306 | 3,256 | 3,206 | 3,166 | 3,136 | 3,123 |
| Illinois | 618 | 633 | 641 | 648 | 647 | 640 | 631 | 620 | 611 |
| Indiana | 296 | 302 | 306 | 306 | 303 | 299 | 296 | 293 | 291 |
| Iowa | 158 | 159 | 160 | 159 | 156 | 153 | 151 | 149 | 149 |
| Kansas | 143 | 143 | 142 | 141 | 139 | 139 | 138 | 138 | 139 |
| Michigan | 502 | 509 | 511 | 508 | 497 | 485 | 478 | 472 | 469 |
| Minnesota | 278 | 278 | 277 | 274 | 269 | 265 | 261 | 259 | 258 |
| Missouri | 271 | 274 | 278 | 277 | 272 | 266 | 261 | 259 | 260 |
| Nebraska | 88 | 88 | 87 | 87 | 85 | 84 | 84 | 85 | 86 |
| North Dakota | 33 | 32 | 31 | 30 | 29 | 29 | 29 | 29 | 30 |
| Ohio | 551 | 557 | 559 | 557 | 548 | 539 | 531 | 525 | 523 |
| South Dakota | 37 | 37 | 36 | 35 | 34 | 34 | 35 | 35 | 36 |
| Wisconsin | 286 | 286 | 285 | 283 | 277 | 273 | 271 | 270 | 271 |
| South | 4,985 | 5,079 | 5,146 | 5,171 | 5,161 | 5,122 | 5,051 | 5,002 | 4,970 |
| Alabama | 204 | 206 | 207 | 207 | 203 | 203 | 201 | 200 | 201 |
| Arkansas | 132 | 134 | 135 | 134 | 131 | 130 | 128 | 128 | 127 |
| Delaware | 35 | 35 | 36 | 36 | 36 | 36 | 36 | 36 | 35 |
| District of Columbia | 14 | 14 | 14 | 14 | 13 | 12 | 12 | 12 | 12 |
| Florida | 754 | 772 | 783 | 788 | 792 | 777 | 758 | 744 | 731 |
| Georgia | 425 | 435 | 442 | 446 | 445 | 445 | 441 | 438 | 436 |
| Kentucky | 196 | 200 | 203 | 207 | 210 | 209 | 208 | 205 | 202 |
| Louisiana | 194 | 195 | 195 | 193 | 194 | 190 | 188 | 186 | 186 |
| Maryland | 266 | 271 | 271 | 269 | 265 | 261 | 259 | 258 | 258 |
| Mississippi | 133 | 135 | 137 | 137 | 135 | 135 | 134 | 133 | 133 |
| North Carolina | 389 | 398 | 404 | 406 | 405 | 399 | 389 | 381 | 373 |
| Oklahoma | 172 | 172 | 173 | 172 | 168 | 164 | 160 | 158 | 157 |
| South Carolina | 196 | 200 | 203 | 202 | 202 | 198 | 196 | 194 | 193 |
| Tennessee | 256 | 262 | 266 | 266 | 261 | 259 | 257 | 256 | 257 |
| Texas | 1,173 | 1,192 | 1,212 | 1,230 | 1,238 | 1,241 | 1,228 | 1,220 | 1,216 |
| Virginia | 364 | 374 | 382 | 384 | 383 | 382 | 379 | 377 | 375 |
| West Virginia | 82 | 82 | 82 | 81 | 79 | 78 | 78 | 78 | 78 |
| West | 3,506 | 3,589 | 3,640 | 3,669 | 3,659 | 3,634 | 3,613 | 3,601 | 3,600 |
| Alaska | 41 | 41 | 41 | 40 | 39 | 39 | 39 | 40 | 42 |
| Arizona | 267 | 277 | 286 | 292 | 296 | 296 | 291 | 288 | 284 |
| California | 1,925 | 1,979 | 2,005 | 2,028 | 2,025 | 2,001 | 1,991 | 1,979 | 1,972 |
| Colorado | 224 | 229 | 233 | 236 | 237 | 236 | 233 | 232 | 231 |
| Hawaii | 54 | 54 | 53 | 53 | 51 | 52 | 54 | 55 | 57 |
| Idaho | 76 | 77 | 78 | 78 | 77 | 79 | 81 | 82 | 85 |
| Montana | 47 | 46 | 46 | 45 | 43 | 44 | 44 | 45 | 47 |
| Nevada | 114 | 121 | 127 | 132 | 135 | 134 | 130 | 125 | 121 |
| New Mexico | 95 | 95 | 95 | 94 | 91 | 93 | 95 | 97 | 101 |
| Oregon | 171 | 173 | 174 | 172 | 169 | 167 | 166 | 166 | 166 |
| Utah | 146 | 148 | 149 | 150 | 150 | 151 | 152 | 153 | 155 |
| Washington | 320 | 323 | 326 | 325 | 320 | 316 | 313 | 312 | 313 |
| Wyoming | 26 | 26 | 26 | 25 | 24 | 24 | 25 | 26 | 27 |

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys and State Public Elementary and Secondary Enrollment Model. (This table was prepared May 2002.)

**Table 9.—Percent change in grades 9–12 enrollment in public schools, by region and state, with projections: Fall 1994 to fall 2012**

| Region and state | Actual | Projected | | |
|---|---|---|---|---|
| | 1994 to 2000 | 2000 to 2006 | 2006 to 2012 | 2000 to 2012 |
| United States | 10.7 | 9.1 | -4.1 | 4.6 |
| Northeast | 9.1 | 10.4 | -7.4 | 2.2 |
| Connecticut | 18.7 | 13.1 | -10.4 | 1.3 |
| Maine | 8.2 | -3.6 | -6.7 | -10.1 |
| Massachusetts | 15.9 | 12.5 | -10.3 | 1.0 |
| New Hampshire | 21.5 | 7.4 | -5.3 | 1.8 |
| New Jersey | 13.9 | 18.8 | -5.9 | 11.7 |
| New York | 4.4 | 8.5 | -7.1 | 0.8 |
| Pennsylvania | 6.8 | 8.8 | -6.8 | 1.5 |
| Rhode Island | 10.7 | 9.6 | -9.8 | -1.1 |
| Vermont | 9.6 | -5.8 | -4.2 | -9.8 |
| Midwest | 6.6 | 3.7 | -5.8 | -2.3 |
| Illinois | 4.9 | 11.6 | -4.7 | 6.4 |
| Indiana | -1.4 | 6.8 | -4.6 | 1.9 |
| Iowa | 4.3 | -0.7 | -7.0 | -7.7 |
| Kansas | 12.0 | -3.3 | -2.7 | -5.9 |
| Michigan | 9.7 | 4.7 | -8.2 | -3.9 |
| Minnesota | 15.1 | 0.1 | -6.7 | -6.6 |
| Missouri | 7.1 | 3.8 | -6.7 | -3.1 |
| Nebraska | 7.9 | -3.6 | -2.2 | -5.7 |
| North Dakota | 2.5 | -15.2 | -4.3 | -18.8 |
| Ohio | 4.3 | 3.2 | -6.4 | -3.4 |
| South Dakota | -2.2 | -11.5 | 0.5 | -11.0 |
| Wisconsin | 9.8 | 0.3 | -5.0 | -4.8 |
| South | 10.5 | 9.6 | -3.4 | 5.9 |
| Alabama | 0.0 | 2.7 | -3.0 | -0.4 |
| Arkansas | 2.8 | 2.3 | -5.6 | -3.5 |
| Delaware | 12.9 | 5.5 | -1.2 | 4.2 |
| District of Columbia | -16.8 | -5.9 | -18.1 | -22.9 |
| Florida | 24.6 | 16.1 | -6.6 | 8.4 |
| Georgia | 14.5 | 14.9 | -1.4 | 13.3 |
| Kentucky | 1.9 | 4.3 | -0.4 | 3.9 |
| Louisiana | -8.2 | -0.9 | -4.5 | -5.3 |
| Maryland | 16.1 | 11.1 | -4.9 | 5.7 |
| Mississippi | -3.7 | 2.2 | -3.1 | -0.9 |
| North Carolina | 12.6 | 16.2 | -7.7 | 7.3 |
| Oklahoma | 6.3 | -2.6 | -9.4 | -11.7 |
| South Carolina | 2.4 | 10.0 | -4.7 | 4.8 |
| Tennessee | 0.1 | 10.5 | -3.5 | 6.6 |
| Texas | 16.7 | 8.6 | 0.3 | 8.9 |
| Virginia | 14.9 | 16.0 | -1.8 | 13.9 |
| West Virginia | -12.8 | -3.5 | -5.5 | -8.8 |
| West | 16.6 | 12.5 | -1.1 | 11.3 |
| Alaska | 16.7 | 5.4 | 1.6 | 7.1 |
| Arizona | 21.9 | 20.5 | -0.7 | 19.6 |
| California | 19.4 | 15.7 | -1.7 | 13.8 |
| Colorado | 21.8 | 12.2 | -0.8 | 11.2 |
| Hawaii | 3.9 | 2.7 | 6.2 | 9.1 |
| Idaho | 4.4 | 4.3 | 8.9 | 13.6 |
| Montana | 4.3 | -7.6 | 2.8 | -5.1 |
| Nevada | 37.6 | 41.3 | -4.9 | 34.4 |
| New Mexico | -2.7 | -0.7 | 6.1 | 5.3 |
| Oregon | 11.3 | 4.0 | -4.3 | -0.4 |
| Utah | 1.5 | 0.7 | 3.7 | 4.4 |
| Washington | 17.0 | 5.2 | -4.1 | 0.8 |
| Wyoming | -1.3 | -14.4 | 7.0 | -8.4 |

NOTE: Calculations are based on unrounded numbers. Mean absolute percentage errors of selected education statistics can be found in table A2.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys and State Public Elementary and Secondary Enrollment Model. (This table was prepared May 2002.)

# Chapter 2

# Enrollment in Degree-Granting Institutions

Overall enrollment in degree-granting institutions* is expected to rise between 2000 and 2012. Changes in age-specific enrollment rates and college-age populations will affect enrollment levels over the next 12 years (figures 13 and 14). The most important factor in the projected rise of college enrollment is the projected increase of 15 percent in the traditional college-age population of 18- to 24-year-olds from 2000 to 2012 (appendix table B4). The 25- to 29-year-old population is projected to decrease by 2 percent between 2000 and 2002, and then increase by 15 percent between 2002 and 2012, for a net increase of 13 percent. The 30- to 34-year-old population is expected to decrease by 7 percent between 2000 and 2007 and then increase 10 percent by 2012. The 35- to 44-year-old population is expected to decrease by 13 percent between 2000 and 2012. The increases in the younger population are expected to more than offset the loss of students from the older populations, thereby contributing to the increases in college enrollment over the projection period. The enrollment projections do not take into account such factors as the cost of a college education, the economic value of an education, and the impact of distance learning due to technological changes. These factors may produce changes in enrollment levels. Projections of college enrollment that have been produced over the past 6 years are more accurate than projections of doctor's degrees, but less accurate than projections of public elementary and secondary enrollment that NCES has published over the same time period. For more information, see table A2, page 79.

## Total College Enrollment

For the nation, college enrollment increased from 13.8 million in 1990 to 14.5 million in 1992. Then it decreased to 14.3 million in 1995. Thereafter, it increased to 15.3 million in 2000 (table 10 and figure 15). Under the middle alternative, college enrollment is projected to rise to 17.7 million by 2012, an increase of 15 percent from 2000.

Under the low alternative, college enrollment is projected to increase from 15.3 million in 2000 to 17.1 million by 2012, an increase of 12 percent over the projection period.

Under the high alternative, college enrollment is expected to increase from 15.3 million in 2000 to 18.2 million by 2012, an increase of 19 percent over the projection period.

## Enrollment, by Sex of Student

Women played a major role in the increase of enrollment between 1990 and 2000. The enrollment of women in college increased from 7.5 million in 1990 to 8.6 million in 2000, a 14 percent increase over the period (figure 17). Under the middle alternative, enrollment of women is expected to increase to 10.1 million by 2012, an increase of 18 percent from 2000. As a share of total college enrollment, women were 56 percent of all college students in 2000 compared with 55 percent in 1990. Women's share of college enrollment is projected to be 57 percent by 2012.

The enrollment of men in college increased from 6.3 million in 1990 to 6.5 million in 1992, before decreasing to 6.3 million in 1995. Thereafter, it increased to 6.7 million in 2000. Under the middle alternative, enrollment of men is expected to increase to 7.5 million by 2012, a 12 percent increase from 2000.

## Enrollment, by Attendance Status

Full-time enrollment increased from 7.8 million in 1990 to 9.0 million in 2000, an increase of 15 percent (figure 19). Under the middle alternative, full-time enrollment is expected to increase another 19 percent to 10.7 million by 2012.

Part-time enrollment increased from 6.0 million in 1990 to 6.3 million in 1992. Then it decreased to 5.9 million in 1998, before increasing to 6.3 million in 2000. Under the middle alternative, part-time enrollment is expected to increase to 6.9 million by 2012, an increase

* This term applies mainly to those institutions that provide study beyond secondary school and that offer programs terminating in an associate, baccalaureate, or higher degree.

of 10 percent over the projection period.

## Enrollment, by Age

The alternative projections of enrollment in degree-granting institutions by age, sex, and attendance status are shown in table 11 (middle alternative), table 12 (low alternative), and table 13 (high alternative). Projections of college attendance rates appear in appendix table A1.1. These projections are based on age-specific enrollment data from the U.S. Census Bureau and enrollment data from NCES.

Under the middle alternative, the period from 1992 to 2012 will be one of change in the age distribution of college students. In contrast to recent patterns, younger students are expected to become more prevalent on college campuses. The enrollment of students who are 18 to 24 years old increased from 8.2 million in 1992 to 9.2 million in 2000, an increase of 12 percent (table 11 and figure 31). This number is expected to increase to 10.7 million by 2012, an increase of 17 percent from 2000. As a result, the proportion of students who are 18 to 24 years old, which increased from 57 percent in 1992 to 60 percent in 2000, is projected to be 61 percent by 2012.

The enrollment of students who are 25 years and over decreased from 6.1 million in 1992 to 6.0 million in 2000, a decrease of 2 percent. This number is projected to be 6.7 million in 2012, an increase of 12 percent. The proportion of students 25 years old and over decreased from 42 percent in 1992 to 39 percent in 2000. This proportion is projected to decrease slightly to 38 percent by 2012.

## Enrollment, by Control of Institution

Enrollment in public institutions grew from 10.8 million in 1990 to 11.4 million in 1992, and then decreased to 11.1 million in 1995 followed by a rise to 11.8 million in 2000, for a net increase of 8 percent over the period (table 10 and figure 21). Under the middle alternative, public enrollment is expected to increase to 13.5 million by 2012, an increase of 15 percent over the projection period.

Enrollment in private institutions, which include not-for-profit and for-profit institutions, increased from 3.0 million in 1990 to 3.6 million in 2000, an increase of 20 percent over the period. Under the middle alternative, private enrollment is expected to increase to 4.1 million by 2012, an increase of 16 percent over the projection period.

## Enrollment, by Type and Control of Institution

Enrollment in public 4-year institutions increased from 5.8 million in 1990 to 6.1 million in 2000, an increase of 4 percent over the period (table 15). Under the middle alternative, this enrollment is expected to rise to 7.2 million by 2012, a 19 percent increase from 2000.

Enrollment in public 2-year institutions rose from 5.0 million in 1990 to 5.7 million in 2000, an increase of 14 percent over the period (table 16). Under the middle alternative, enrollment in public 2-year institutions is expected to rise to 6.3 million by 2012, an 11 percent increase over the projection period.

Enrollment in private 4-year institutions increased from 2.7 million in 1990 to 3.3 million in 2000, an increase of 21 percent over the period (table 17). Under the middle alternative, this enrollment is expected to rise to 3.8 million by 2012, a 16 percent increase over the projection period.

Enrollment in private 2-year institutions increased from 244,000 in 1990 to 251,000 in 2000, an increase of 3 percent over the period (table 18). Under the middle alternative, enrollment in private 2-year institutions is expected to rise to 301,000 by 2012, a 20 percent increase over the projection period.

## Enrollment, by Level

Undergraduate enrollment increased from 12.0 million in 1990 to 13.2 million in 2000, a 10 percent increase over the period (table 19 and figure 25). Under the middle alternative, undergraduate enrollment is expected to increase to 15.3 million by 2012, a 16 percent increase over the projection period.

Graduate enrollment rose from 1.6 million in 1990 to 1.9 million in 2000, a 17-percent increase over the period (table 20 and figure 27). Under the middle alternative, graduate enrollment is expected to increase to 2.1 million by 2012, a 12 percent increase over the projection period.

First-professional enrollment increased from 273,000 in 1990 to 307,000 in 2000, a 12 percent increase over the period (table 21 and figure 27). Under the middle alternative, first-professional enrollment is expected to increase to 347,000 by 2012. This represents a 13 percent increase from 2000.

## Full-Time-Equivalent Enrollment

Full-time-equivalent enrollment increased from 10.0 million in 1990 to 11.3 million in 2000, a 13 percent increase over the period (table 22 and figure 29). Under the middle alternative, full-time-equivalent enrollment is expected to increase to 13.2 million by 2012, a 17 percent increase over the projection period.

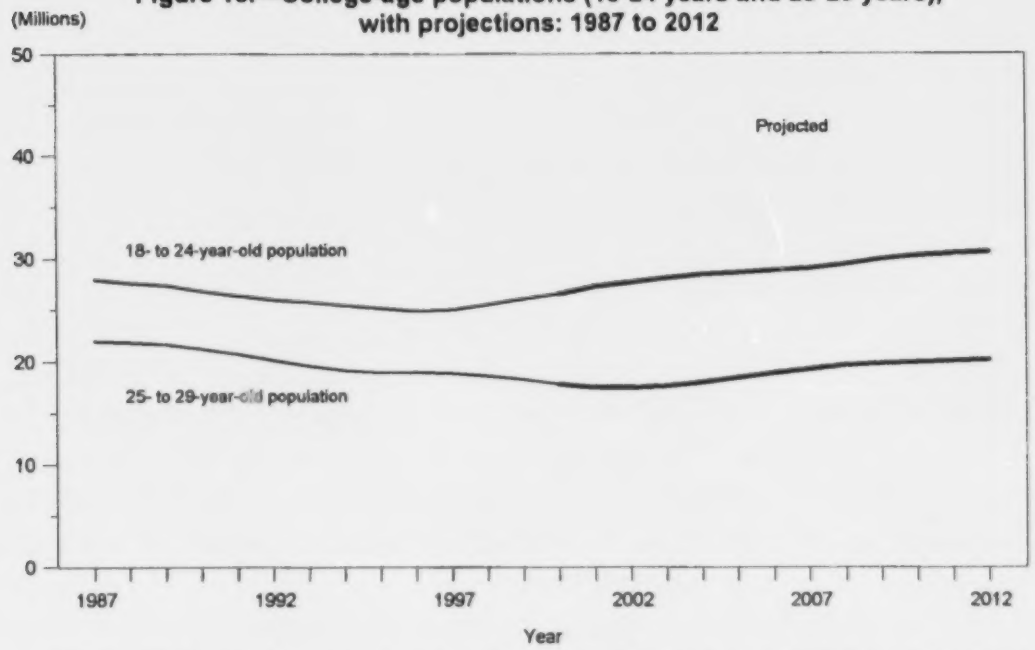
## Alternative Projections

College enrollment projections were based on projected enrollment rates, by age and sex, which were then applied to population projections by age and sex developed by the U.S. Census Bureau. The middle series population projections, which assume middle fertility and yearly net migration, were used.

Three sets of projections are presented for enrollment in degree-granting institutions to indicate a range of possible outcomes. Each set of projections is based on alternative assumptions. The middle alternative is based on the base scenario of the economy developed by the company DRI-WEFA Inc., for the projections of disposable income and unemployment rates. Under the middle alternative, the higher education enrollment model interprets the college enrollment decision as a static, short-term economic decision, i.e., potential consumers for higher education weigh the economic costs before making a decision to study or work. Thus, the model assumes that a representative student gives greater importance to current earnings potential over lifetime earning potential. The model has two explanatory variables, the unemployment rate and real disposable income. The unemployment rate serves as a proxy for the attractiveness of the current working environment. A weak labor market increases the attractiveness of a college education. Real disposable income captures a student's ability to afford the costs of attending college. These relationships are assumed through 2012. For more information, see appendix A, section A.1.

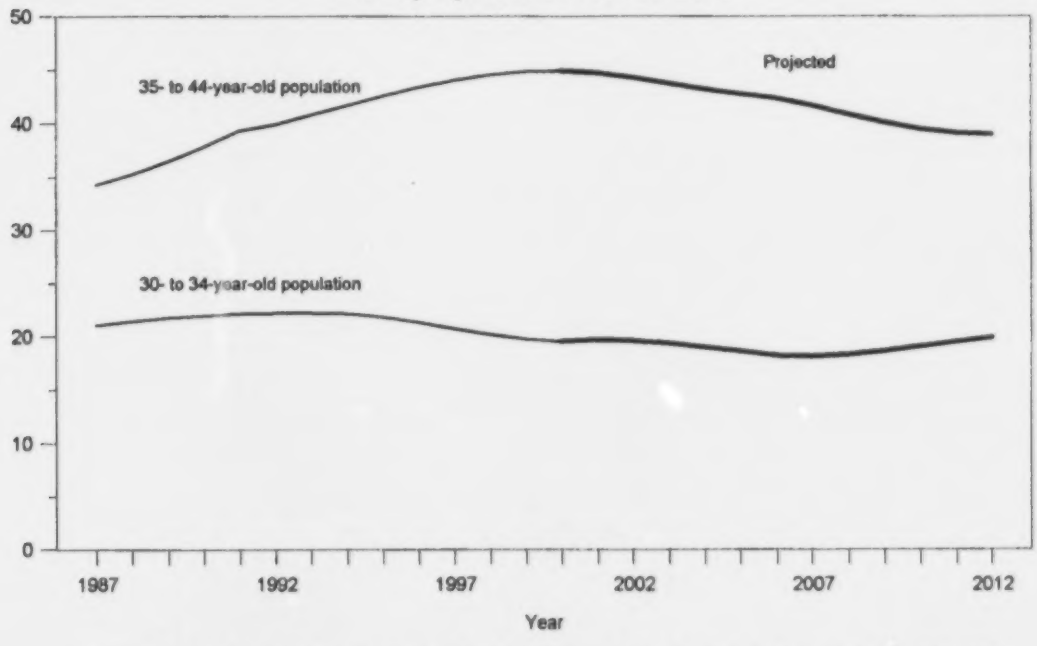
The low and high alternatives incorporate past errors of projections of college enrollment to provide other possible outcomes.

## Figure 13.—College-age populations (18-24 years and 25-29 years), with projections: 1987 to 2012



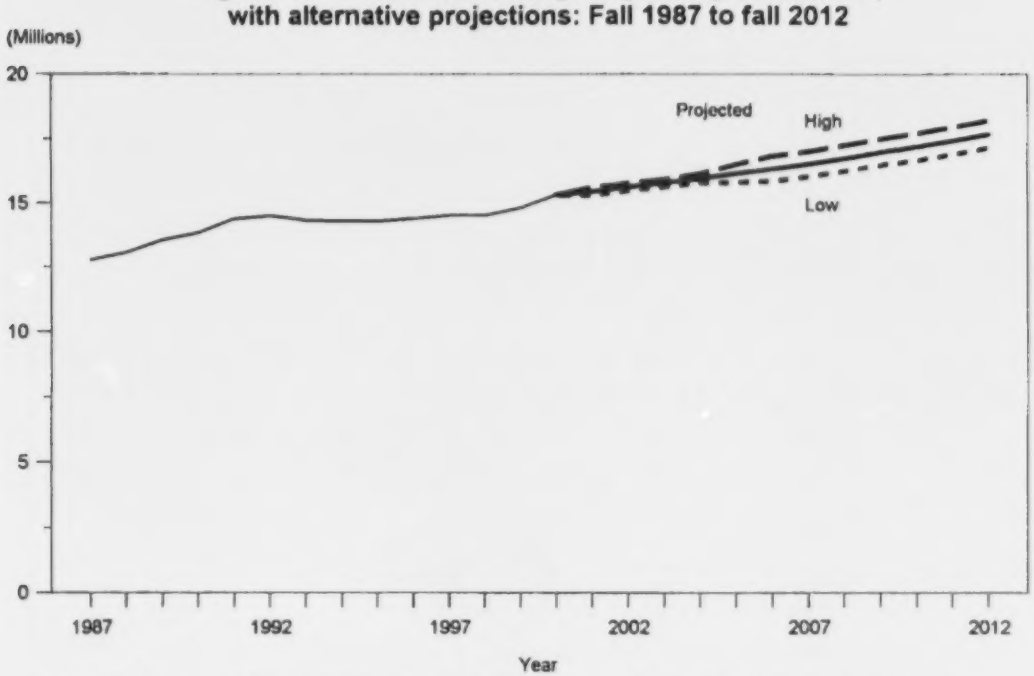

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-25, Nos. 1092, 1095, and "National Population Estimates," December 2001, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000.

## Figure 14.—College-age populations (30-34 years and 35-44 years), with projections: 1987 to 2012



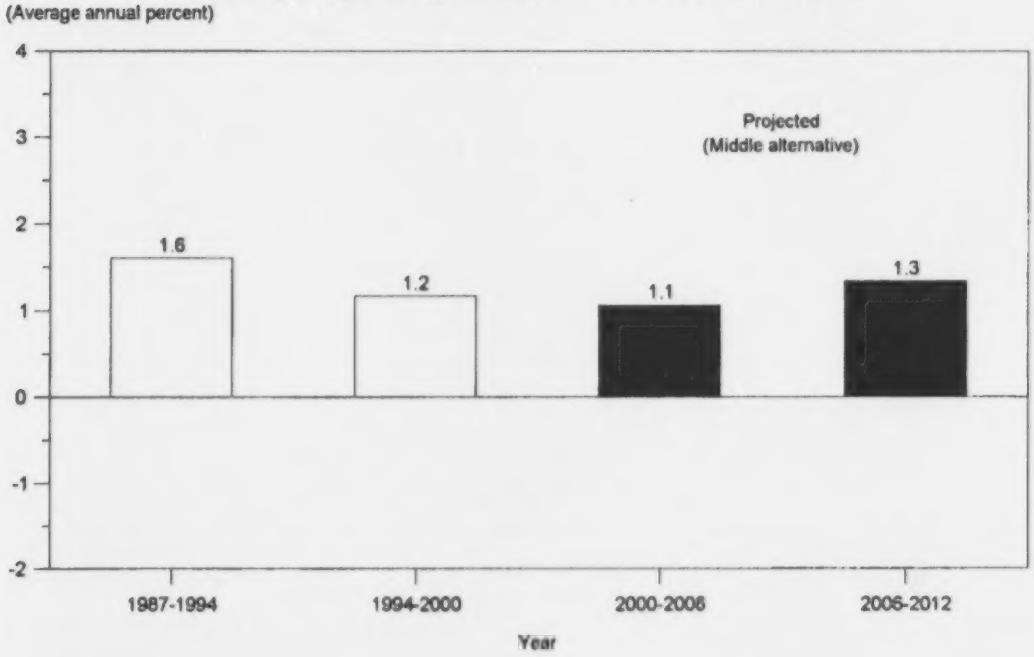

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-25, Nos. 1092, 1095, and "National Population Estimates," December 2001, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000.

## Figure 15.—Enrollment in degree-granting institutions, with alternative projections: Fall 1987 to fall 2012



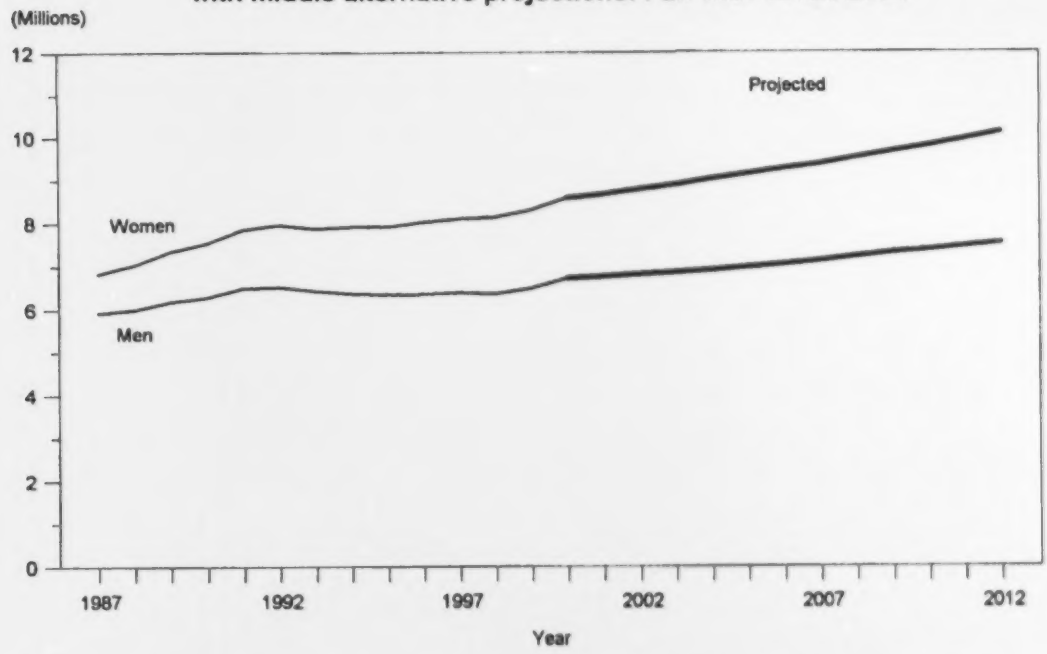

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

## Figure 16.—Average annual growth rates for total enrollment in degree-granting institutions: Fall 1987 to fall 2012



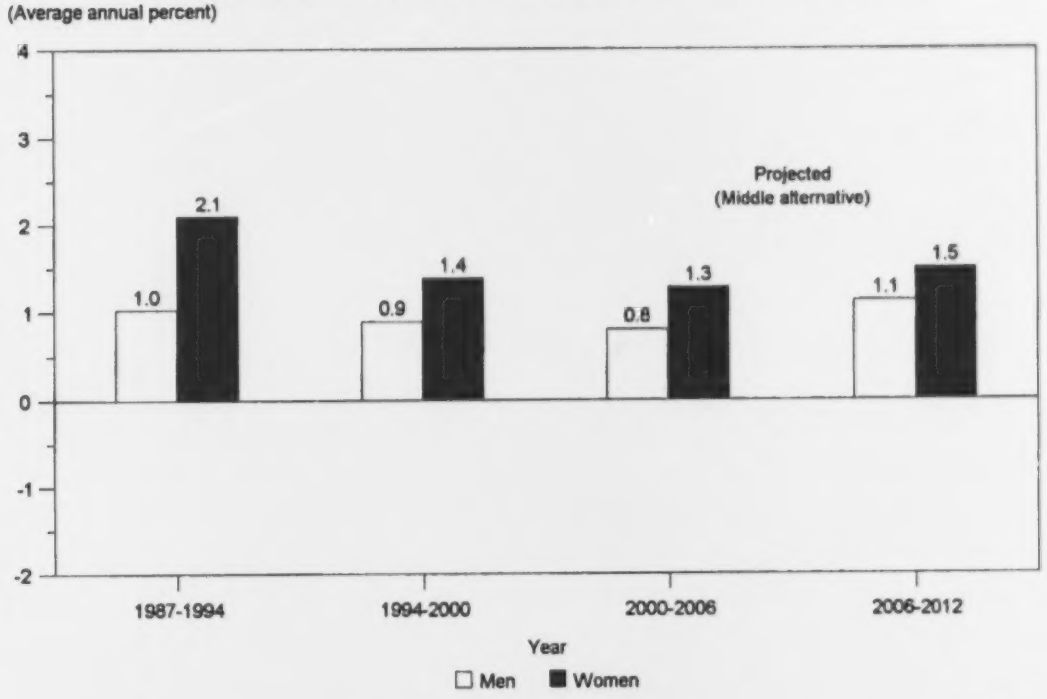

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

## Figure 17.—Enrollment in degree-granting institutions, by sex, with middle alternative projections: Fall 1987 to fall 2012



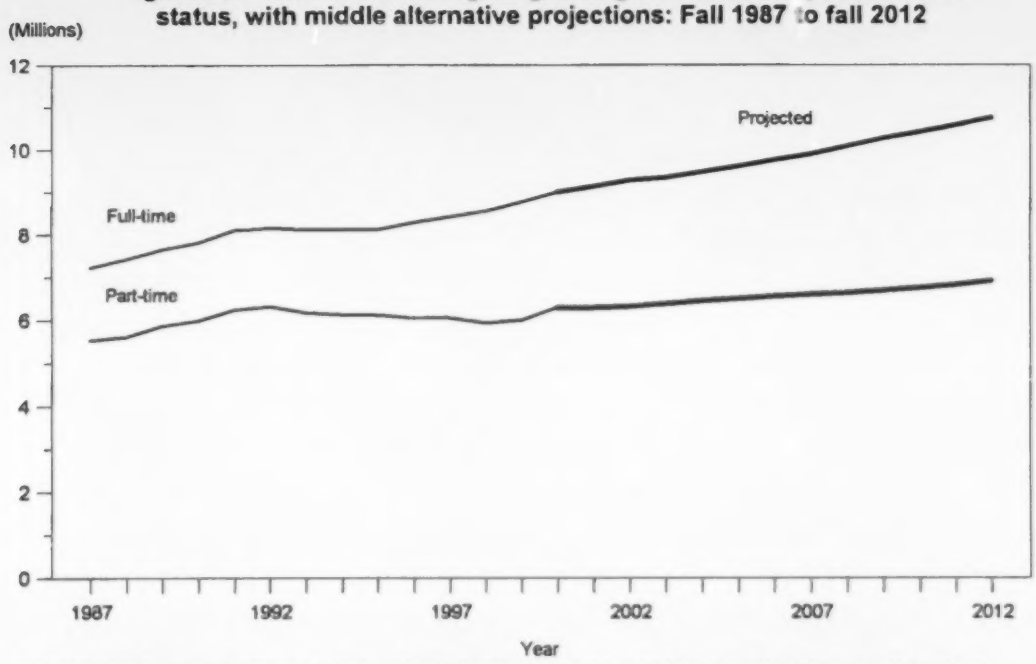

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

## Figure 18.—Average annual growth rates for total enrollment in degree-granting institutions, by sex: Fall 1987 to fall 2012



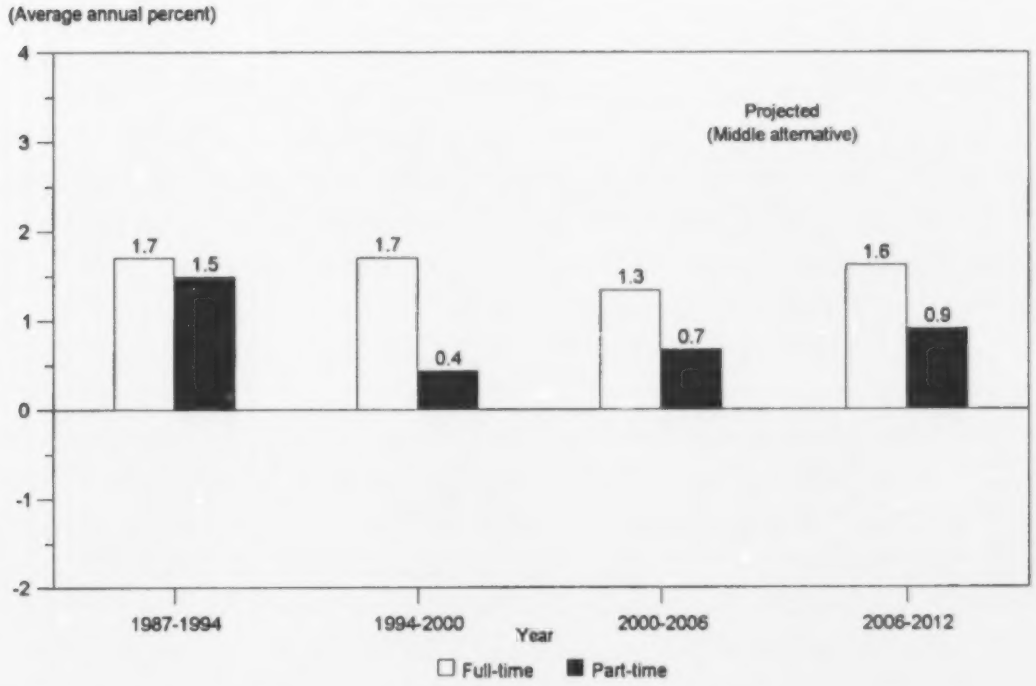

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

**Figure 19.—Enrollment in degree-granting institutions, by attendance status, with middle alternative projections: Fall 1987 to fall 2012**



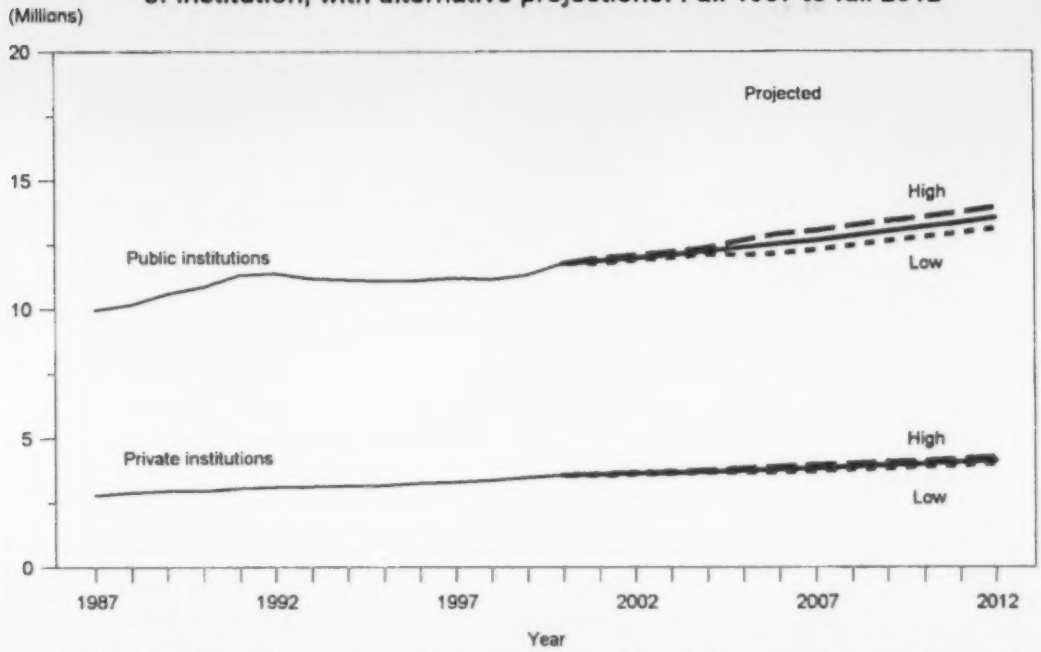

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

**Figure 20.—Average annual rates of change for total enrollment in degree-granting institutions, by attendance status: Fall 1987 to fall 2012**



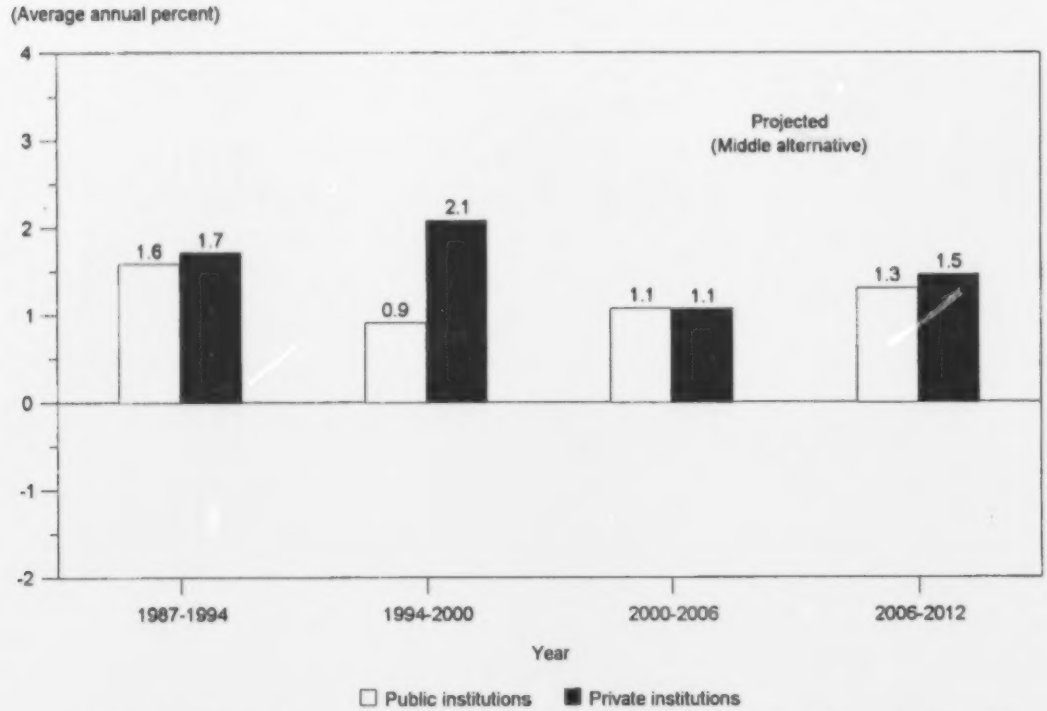

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

## Figure 21.—Enrollment in degree-granting institutions, by control of institution, with alternative projections: Fall 1987 to fall 2012



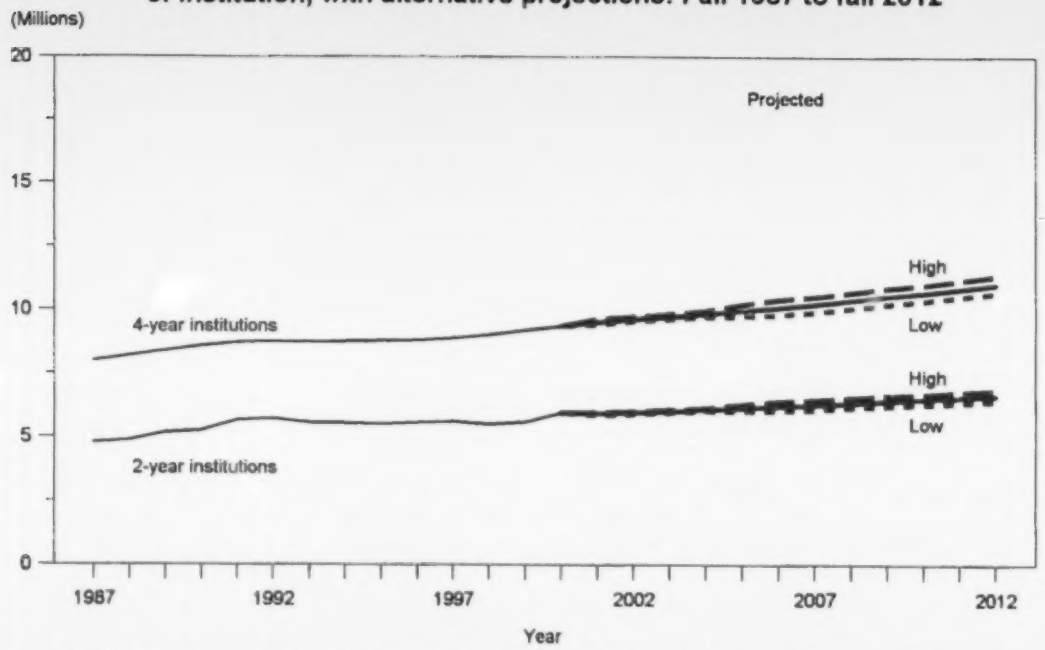

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

## Figure 22.—Average annual growth rates for total enrollment in degree-granting institutions, by control of institution: Fall 1987 to fall 2012



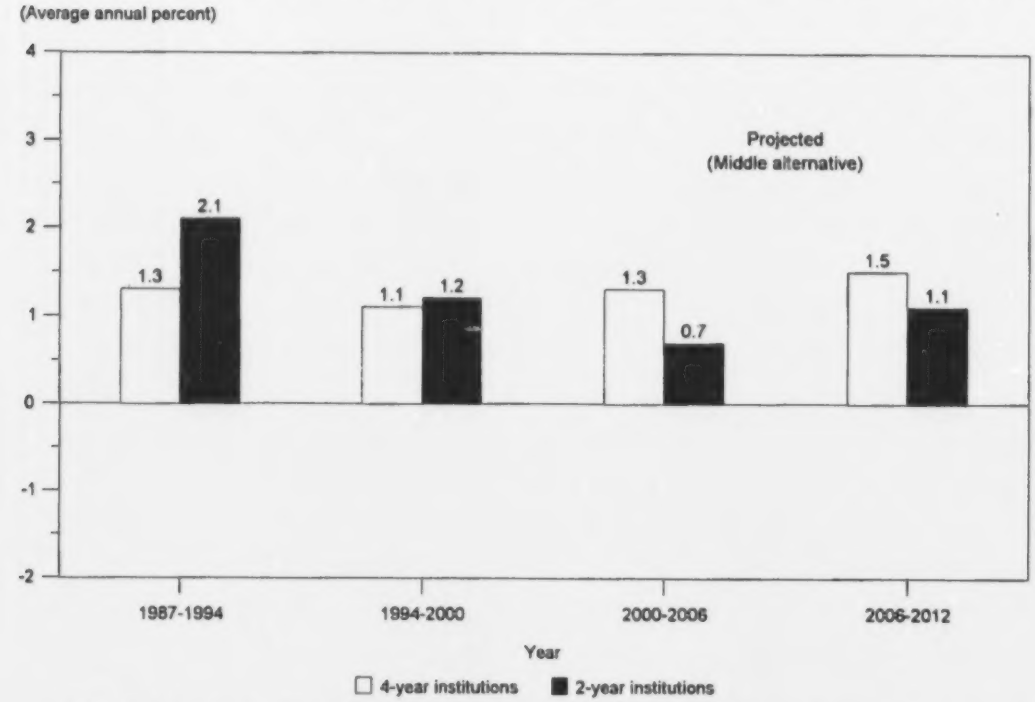

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

## Figure 23.—Enrollment in degree-granting institutions, by type of institution, with alternative projections: Fall 1987 to fall 2012



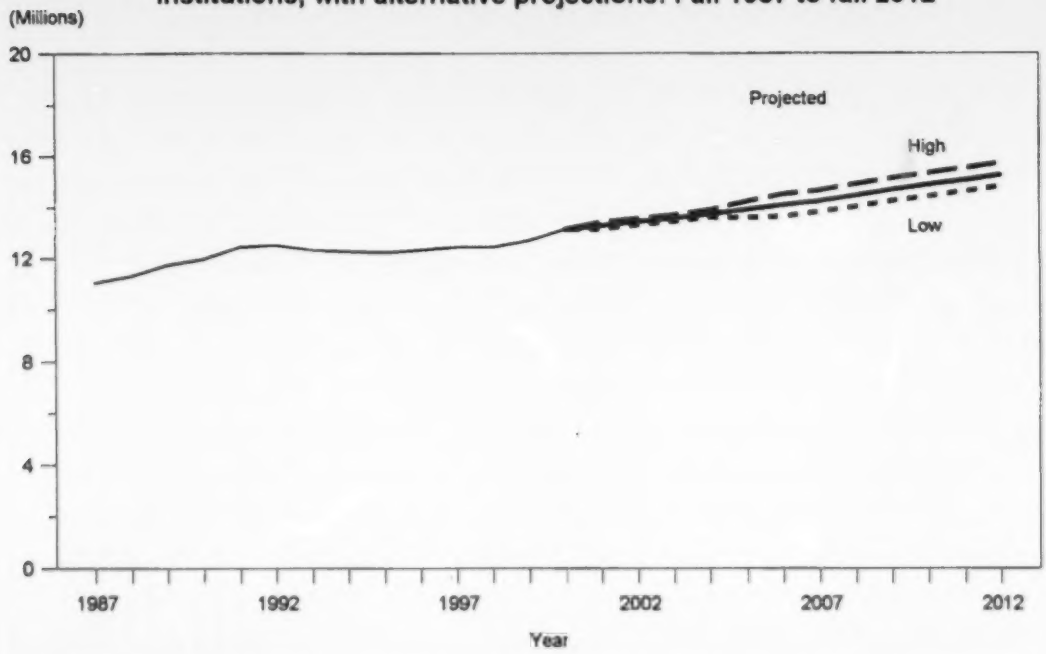

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

## Figure 24.—Average annual growth rates for total enrollment in degree-granting institutions, by type of institution: Fall 1987 to fall 2012



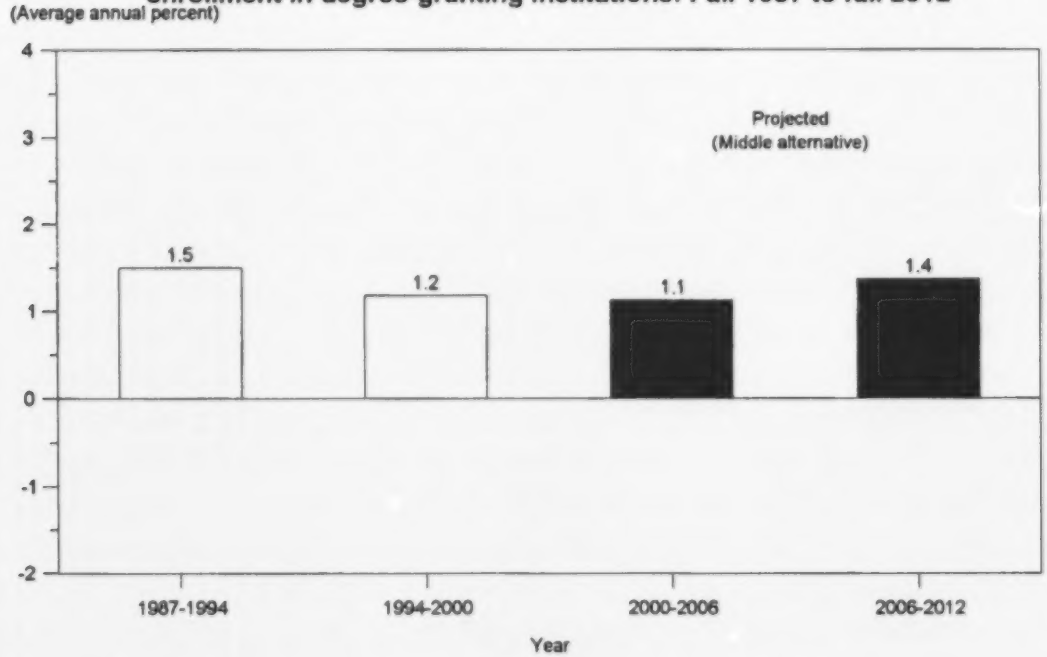

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

## Figure 25.—Undergraduate enrollment in degree-granting institutions, with alternative projections: Fall 1987 to fall 2012



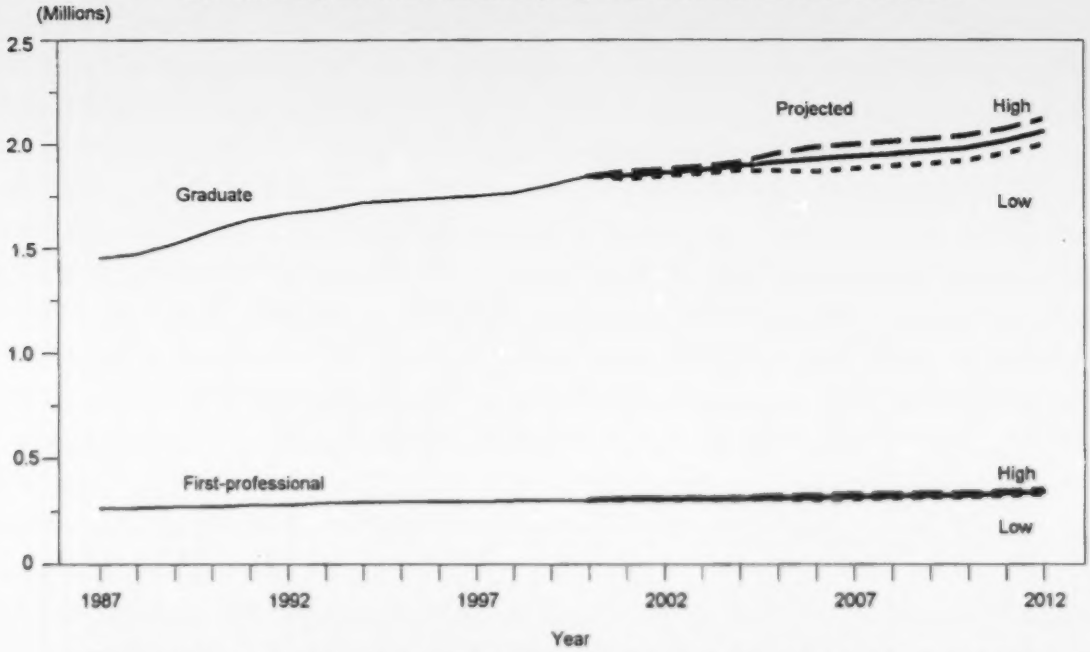

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

## Figure 26.—Average annual growth rates for undergraduate enrollment in degree-granting institutions: Fall 1987 to fall 2012



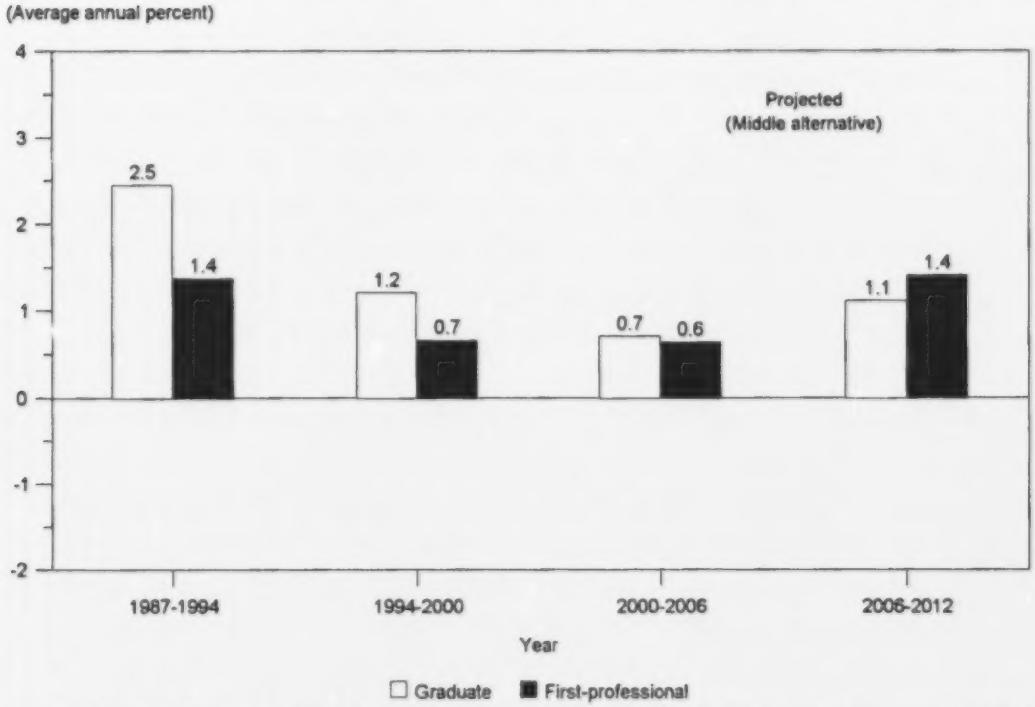

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

**Figure 27.—Postbaccalaureate enrollment in degree-granting institutions, with alternative projections: Fall 1987 to fall 2012**



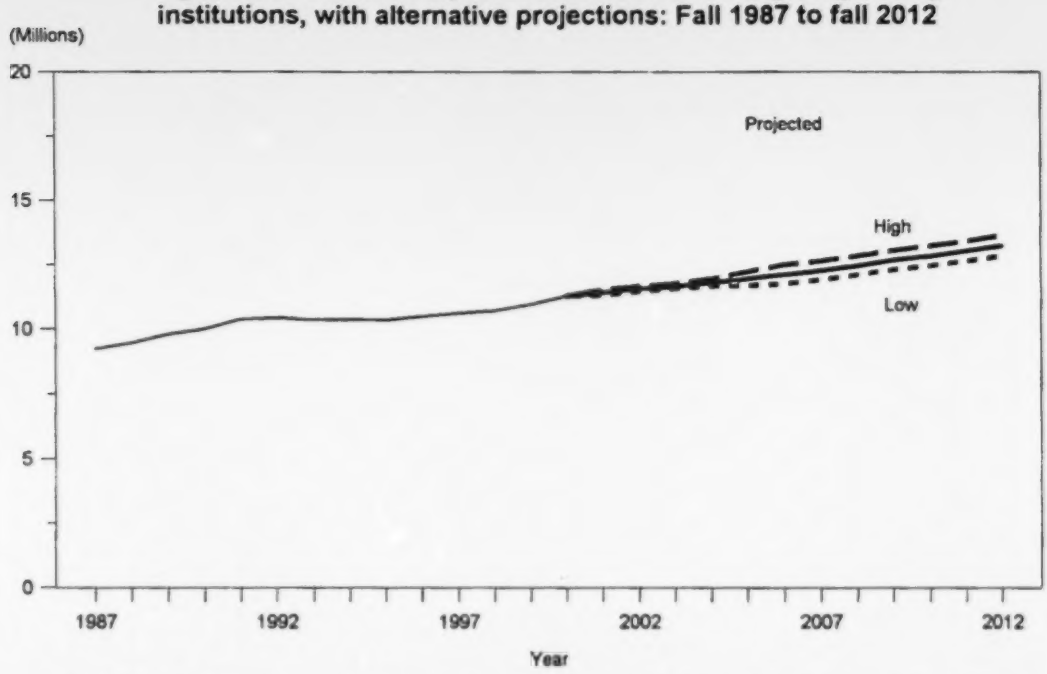

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

**Figure 28.—Average annual growth rates for postbaccalaureate enrollment in degree-granting institutions: Fall 1987 to fall 2012**



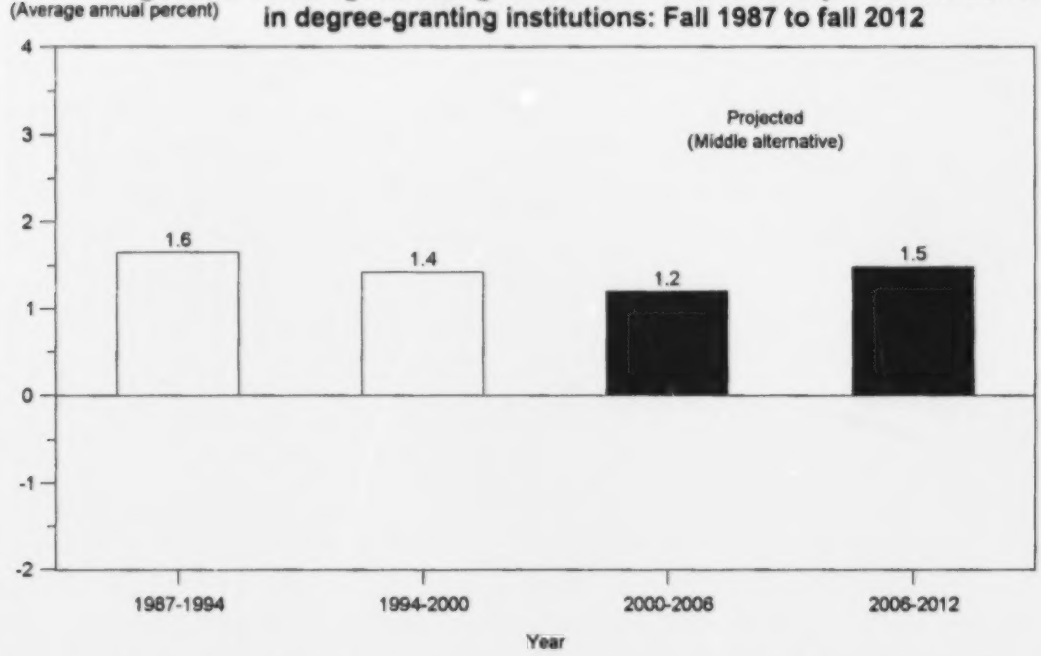

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

**Figure 29.—Full-time-equivalent enrollment in degree-granting institutions, with alternative projections: Fall 1987 to fall 2012**



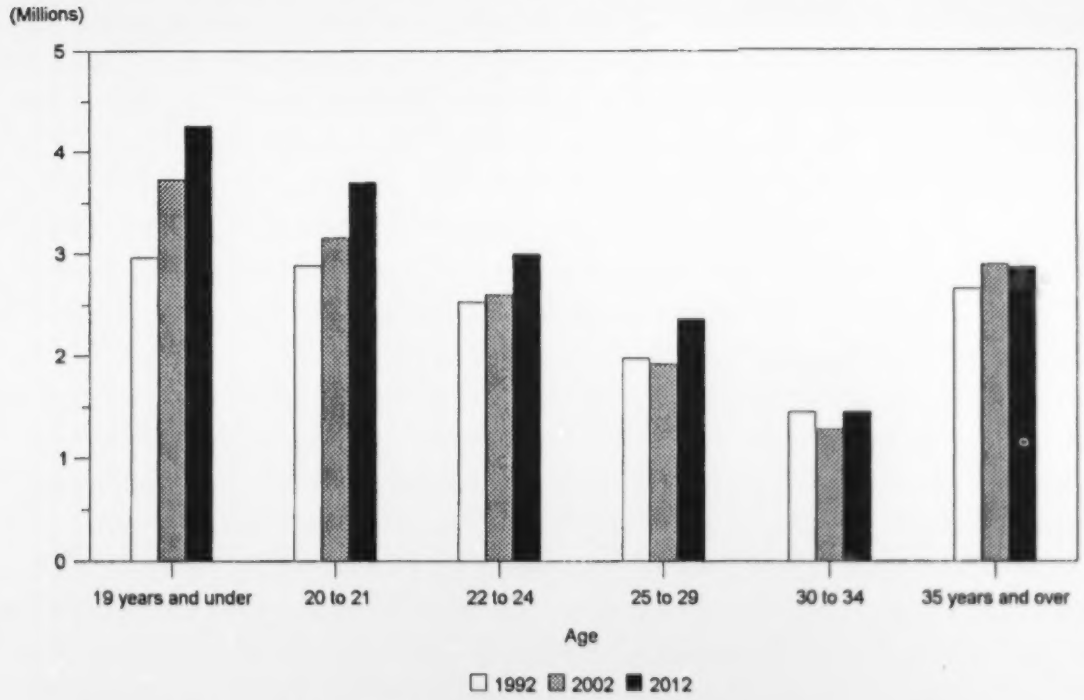

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

**Figure 30.—Average annual growth rates for full-time-equivalent enrollment in degree-granting institutions: Fall 1987 to fall 2012**



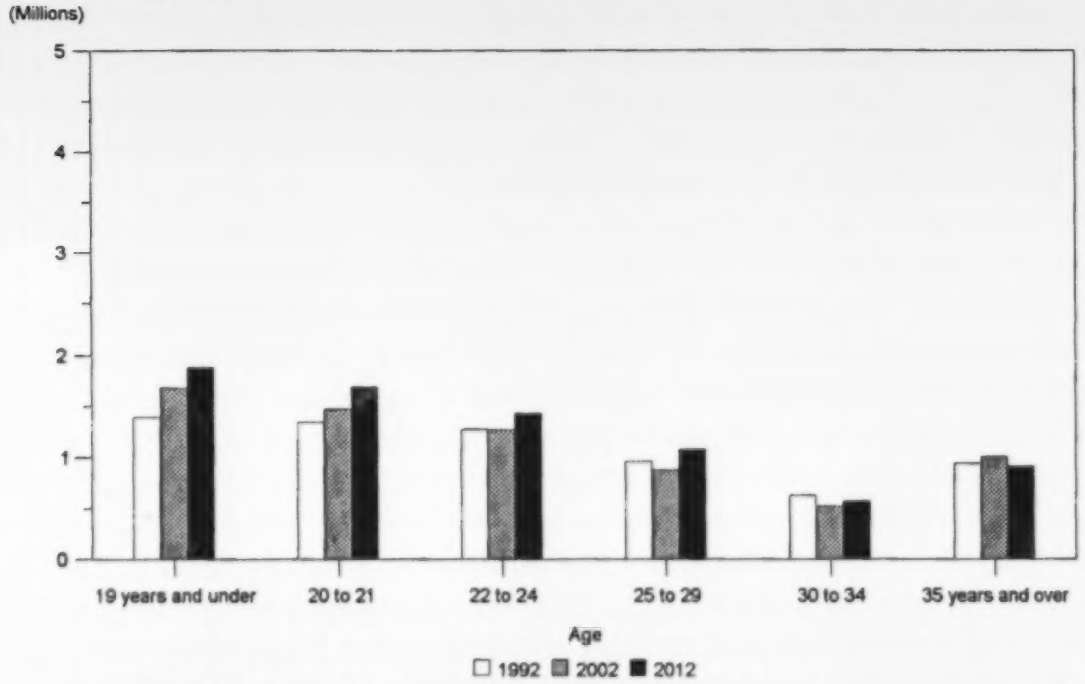

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

**Figure 31.—Enrollment in degree-granting institutions, by age group, with middle alternative projections: Fall 1992, 2002, and 2012**



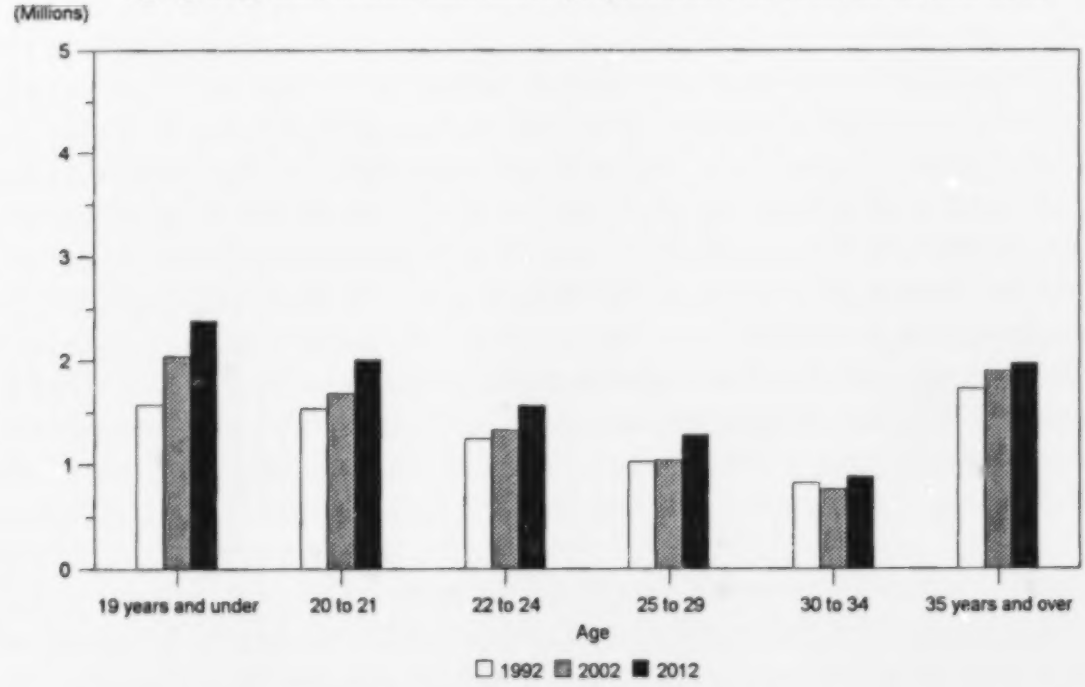

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

**Figure 32.—Enrollment of men in degree-granting institutions, by age group, with middle alternative projections: Fall 1992, 2002, and 2012**




SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

**Figure 33.—Enrollment of women in degree-granting institutions, by age group, with middle alternative projections: Fall 1992, 2002, and 2012**




SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

**Table 10.—Total enrollment in all degree-granting institutions, by sex, attendance status, and control of institution, with alternative projections: Fall 1987 to fall 2012**

(In thousands)

| Year | Total | Sex | | Attendance status | | Control | |
|---|---|---|---|---|---|---|---|
| | | Men | Women | Full-time | Part-time | Public | Private |
| 1987 | 12,767 | 5,932 | 6,835 | 7,231 | 5,536 | 9,973 | 2,793 |
| 1988 | 13,055 | 6,002 | 7,053 | 7,437 | 5,618 | 10,161 | 2,894 |
| 1989 | 13,539 | 6,190 | 7,349 | 7,661 | 5,878 | 10,578 | 2,961 |
| 1990 | 13,819 | 6,284 | 7,535 | 7,821 | 5,998 | 10,845 | 2,974 |
| 1991 | 14,359 | 6,502 | 7,857 | 8,115 | 6,244 | 11,310 | 3,049 |
| 1992 | 14,486 | 6,524 | 7,963 | 8,161 | 6,325 | 11,385 | 3,102 |
| 1993 | 14,305 | 6,427 | 7,877 | 8,128 | 6,177 | 11,189 | 3,116 |
| 1994 | 14,279 | 6,372 | 7,907 | 8,138 | 6,141 | 11,134 | 3,145 |
| 1995 | 14,262 | 6,343 | 7,919 | 8,129 | 6,133 | 11,092 | 3,169 |
| 1996 | 14,368 | 6,353 | 8,015 | 8,303 | 6,065 | 11,120 | 3,247 |
| 1997 | 14,502 | 6,396 | 8,106 | 8,438 | 6,064 | 11,196 | 3,306 |
| 1998 | 14,507 | 6,369 | 8,138 | 8,563 | 5,944 | 11,138 | 3,369 |
| 1999 | 14,791 | 6,491 | 8,301 | 8,786 | 6,005 | 11,309 | 3,482 |
| 2000 | 15,312 | 6,722 | 8,591 | 9,010 | 6,303 | 11,753 | 3,560 |
| **Middle alternative projections** | | | | | | | |
| 2001 | 15,442 | 6,772 | 8,670 | 9,141 | 6,300 | 11,864 | 3,578 |
| 2002 | 15,608 | 6,817 | 8,791 | 9,281 | 6,327 | 11,986 | 3,622 |
| 2003 | 15,756 | 6,860 | 8,896 | 9,358 | 6,398 | 12,101 | 3,655 |
| 2004 | 15,947 | 6,919 | 9,027 | 9,481 | 6,465 | 12,247 | 3,699 |
| 2005 | 16,135 | 6,985 | 9,150 | 9,615 | 6,519 | 12,388 | 3,746 |
| 2006 | 16,321 | 7,052 | 9,269 | 9,761 | 6,561 | 12,528 | 3,793 |
| 2007 | 16,503 | 7,124 | 9,380 | 9,904 | 6,600 | 12,665 | 3,839 |
| 2008 | 16,738 | 7,216 | 9,522 | 10,089 | 6,649 | 12,842 | 3,896 |
| 2009 | 16,978 | 7,309 | 9,669 | 10,276 | 6,702 | 13,023 | 3,955 |
| 2010 | 17,185 | 7,380 | 9,805 | 10,422 | 6,763 | 13,179 | 4,007 |
| 2011 | 17,418 | 7,460 | 9,958 | 10,580 | 6,838 | 13,351 | 4,068 |
| 2012 | 17,673 | 7,542 | 10,131 | 10,749 | 6,924 | 13,537 | 4,136 |
| **Low alternative projections** | | | | | | | |
| 2001 | 15,288 | 6,704 | 8,583 | 9,050 | 6,237 | 11,745 | 3,542 |
| 2002 | 15,468 | 6,756 | 8,712 | 9,197 | 6,270 | 11,878 | 3,589 |
| 2003 | 15,614 | 6,798 | 8,816 | 9,274 | 6,340 | 11,992 | 3,622 |
| 2004 | 15,772 | 6,843 | 8,928 | 9,377 | 6,394 | 12,112 | 3,658 |
| 2005 | 15,780 | 6,831 | 8,949 | 9,403 | 6,376 | 12,115 | 3,664 |
| 2006 | 15,831 | 6,840 | 8,991 | 9,468 | 6,364 | 12,152 | 3,679 |
| 2007 | 16,008 | 6,910 | 9,099 | 9,607 | 6,402 | 12,285 | 3,724 |
| 2008 | 16,236 | 7,000 | 9,236 | 9,786 | 6,450 | 12,457 | 3,779 |
| 2009 | 16,469 | 7,090 | 9,379 | 9,968 | 6,501 | 12,632 | 3,836 |
| 2010 | 16,669 | 7,159 | 9,511 | 10,109 | 6,560 | 12,784 | 3,887 |
| 2011 | 16,895 | 7,236 | 9,659 | 10,263 | 6,633 | 12,950 | 3,946 |
| 2012 | 17,143 | 7,316 | 9,827 | 10,427 | 6,716 | 13,131 | 4,012 |
| **High alternative projections** | | | | | | | |
| 2001 | 15,596 | 6,840 | 8,757 | 9,232 | 6,363 | 11,983 | 3,614 |
| 2002 | 15,748 | 6,878 | 8,870 | 9,365 | 6,384 | 12,094 | 3,655 |
| 2003 | 15,898 | 6,922 | 8,976 | 9,442 | 6,456 | 12,210 | 3,688 |
| 2004 | 16,122 | 6,995 | 9,126 | 9,585 | 6,536 | 12,382 | 3,740 |
| 2005 | 16,490 | 7,139 | 9,351 | 9,827 | 6,662 | 12,661 | 3,828 |
| 2006 | 16,811 | 7,264 | 9,547 | 10,054 | 6,758 | 12,904 | 3,907 |
| 2007 | 16,998 | 7,338 | 9,661 | 10,201 | 6,798 | 13,045 | 3,954 |
| 2008 | 17,240 | 7,432 | 9,808 | 10,392 | 6,848 | 13,227 | 4,013 |
| 2009 | 17,487 | 7,528 | 9,959 | 10,584 | 6,903 | 13,414 | 4,074 |
| 2010 | 17,701 | 7,601 | 10,099 | 10,735 | 6,966 | 13,574 | 4,127 |
| 2011 | 17,941 | 7,684 | 10,257 | 10,897 | 7,043 | 13,752 | 4,190 |
| 2012 | 18,203 | 7,768 | 10,435 | 11,071 | 7,132 | 13,943 | 4,260 |

NOTE: Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures.
(For more details, see appendix E of *Projections of Education Statistics to 2011.*)

Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model. (This table was prepared May 2002.)

**Table 11.—Total enrollment in all degree-granting institutions, by sex, age, and attendance status, with middle alternative projections: Fall 1987 to fall 2012**

(In thousands)

| Sex, age, and attendance status | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Men and women, total** | 12,767 | 13,055 | 13,539 | 13,819 | 14,359 | 14,486 | 14,305 | 14,279 | 14,262 | 14,368 | 14,502 | 14,507 | 14,791 | 15,312 |
| 14 to 17 years old | 264 | 179 | 185 | 177 | 125 | 186 | 127 | 138 | 148 | 231 | 171 | 119 | 143 | 145 |
| 18 to 19 years old | 3,012 | 2,940 | 3,041 | 2,950 | 2,864 | 2,784 | 2,840 | 2,787 | 2,894 | 3,038 | 3,061 | 3,382 | 3,414 | 3,531 |
| 20 to 21 years old | 2,651 | 2,667 | 2,550 | 2,761 | 2,920 | 2,883 | 2,674 | 2,724 | 2,705 | 2,659 | 2,875 | 2,811 | 2,985 | 3,045 |
| 22 to 24 years old | 1,979 | 2,068 | 2,185 | 2,144 | 2,306 | 2,527 | 2,570 | 2,482 | 2,411 | 2,324 | 2,475 | 2,377 | 2,435 | 2,617 |
| 25 to 29 years old | 1,745 | 1,740 | 1,979 | 1,982 | 2,072 | 1,985 | 2,002 | 1,985 | 2,120 | 2,128 | 1,999 | 1,991 | 1,870 | 1,960 |
| 30 to 34 years old | 1,223 | 1,283 | 1,305 | 1,322 | 1,415 | 1,456 | 1,345 | 1,414 | 1,236 | 1,196 | 1,109 | 1,195 | 1,144 | 1,265 |
| 35 years old and over | 1,892 | 2,179 | 2,293 | 2,484 | 2,656 | 2,665 | 2,747 | 2,750 | 2,747 | 2,791 | 2,814 | 2,632 | 2,800 | 2,749 |
| **Men, total** | 5,932 | 6,002 | 6,190 | 6,284 | 6,582 | 6,524 | 6,427 | 6,372 | 6,343 | 6,353 | 6,396 | 6,369 | 6,491 | 6,722 |
| 14 to 17 years old | 127 | 58 | 77 | 87 | 50 | 89 | 54 | 62 | 61 | 92 | 56 | 45 | 71 | 63 |
| 18 to 19 years old | 1,427 | 1,343 | 1,433 | 1,421 | 1,299 | 1,305 | 1,288 | 1,302 | 1,338 | 1,354 | 1,414 | 1,535 | 1,540 | 1,583 |
| 20 to 21 years old | 1,318 | 1,332 | 1,261 | 1,368 | 1,387 | 1,342 | 1,284 | 1,264 | 1,282 | 1,228 | 1,374 | 1,374 | 1,390 | 1,382 |
| 22 to 24 years old | 995 | 1,130 | 1,084 | 1,107 | 1,232 | 1,272 | 1,344 | 1,238 | 1,153 | 1,177 | 1,200 | 1,127 | 1,091 | 1,293 |
| 25 to 29 years old | 920 | 844 | 993 | 940 | 1,049 | 955 | 903 | 936 | 962 | 991 | 972 | 908 | 875 | 862 |
| 30 to 34 years old | 520 | 588 | 562 | 537 | 614 | 627 | 584 | 601 | 561 | 477 | 443 | 463 | 515 | 527 |
| 35 years old and over | 625 | 707 | 782 | 824 | 870 | 933 | 970 | 969 | 986 | 1,033 | 938 | 917 | 1,008 | 1,012 |
| **Women, total** | 6,835 | 7,053 | 7,349 | 7,535 | 7,857 | 7,963 | 7,877 | 7,907 | 7,919 | 8,015 | 8,106 | 8,138 | 8,301 | 8,591 |
| 14 to 17 years old | 136 | 121 | 108 | 90 | 76 | 97 | 73 | 75 | 87 | 139 | 115 | 74 | 72 | 82 |
| 18 to 19 years old | 1,585 | 1,596 | 1,608 | 1,529 | 1,565 | 1,479 | 1,552 | 1,485 | 1,557 | 1,684 | 1,647 | 1,847 | 1,873 | 1,948 |
| 20 to 21 years old | 1,333 | 1,336 | 1,290 | 1,392 | 1,533 | 1,541 | 1,391 | 1,461 | 1,424 | 1,430 | 1,501 | 1,437 | 1,595 | 1,663 |
| 22 to 24 years old | 984 | 937 | 1,101 | 1,037 | 1,074 | 1,255 | 1,226 | 1,243 | 1,258 | 1,147 | 1,275 | 1,250 | 1,344 | 1,324 |
| 25 to 29 years old | 825 | 896 | 986 | 1,043 | 1,022 | 1,030 | 1,098 | 1,049 | 1,159 | 1,137 | 1,027 | 1,083 | 995 | 1,099 |
| 30 to 34 years old | 703 | 695 | 743 | 784 | 800 | 828 | 761 | 812 | 675 | 719 | 666 | 732 | 629 | 738 |
| 35 years old and over | 1,268 | 1,472 | 1,511 | 1,659 | 1,786 | 1,732 | 1,777 | 1,781 | 1,760 | 1,758 | 1,877 | 1,715 | 1,793 | 1,736 |
| **Full-time, total** | 7,231 | 7,437 | 7,661 | 7,821 | 8,115 | 8,161 | 8,128 | 8,138 | 8,129 | 8,303 | 8,438 | 8,563 | 8,786 | 9,010 |
| 14 to 17 years old | 146 | 150 | 154 | 144 | 117 | 179 | 92 | 118 | 123 | 166 | 123 | 93 | 129 | 125 |
| 18 to 19 years old | 2,568 | 2,528 | 2,671 | 2,548 | 2,466 | 2,382 | 2,370 | 2,321 | 2,387 | 2,553 | 2,534 | 2,794 | 2,847 | 2,932 |
| 20 to 21 years old | 2,060 | 2,108 | 2,064 | 2,151 | 2,342 | 2,267 | 2,148 | 2,178 | 2,109 | 2,117 | 2,275 | 2,271 | 2,361 | 2,401 |
| 22 to 24 years old | 1,185 | 1,243 | 1,300 | 1,350 | 1,467 | 1,594 | 1,612 | 1,551 | 1,517 | 1,598 | 1,606 | 1,564 | 1,662 | 1,653 |
| 25 to 29 years old | 650 | 670 | 667 | 770 | 830 | 731 | 839 | 869 | 908 | 911 | 897 | 890 | 854 | 878 |
| 30 to 34 years old | 278 | 350 | 332 | 387 | 382 | 409 | 424 | 440 | 430 | 383 | 377 | 367 | 338 | 422 |
| 35 years old and over | 344 | 389 | 474 | 471 | 513 | 598 | 643 | 660 | 653 | 575 | 626 | 584 | 596 | 599 |
| **Men, full-time** | 3,611 | 3,662 | 3,740 | 3,808 | 3,929 | 3,926 | 3,891 | 3,855 | 3,807 | 3,851 | 3,890 | 3,934 | 4,026 | 4,111 |
| 14 to 17 years old | 70 | 51 | 60 | 71 | 41 | 86 | 37 | 51 | 54 | 72 | 48 | 39 | 63 | 51 |
| 18 to 19 years old | 1,228 | 1,171 | 1,289 | 1,230 | 1,141 | 1,130 | 1,079 | 1,081 | 1,091 | 1,126 | 1,154 | 1,240 | 1,271 | 1,250 |
| 20 to 21 years old | 1,039 | 1,032 | 1,017 | 1,055 | 1,103 | 1,084 | 1,003 | 1,029 | 999 | 969 | 1,074 | 1,129 | 1,124 | 1,106 |
| 22 to 24 years old | 649 | 723 | 696 | 742 | 817 | 854 | 896 | 811 | 789 | 858 | 770 | 777 | 788 | 839 |
| 25 to 29 years old | 353 | 383 | 366 | 401 | 465 | 378 | 443 | 457 | 454 | 444 | 475 | 424 | 417 | 415 |
| 30 to 34 years old | 139 | 158 | 151 | 156 | 174 | 174 | 180 | 193 | 183 | 143 | 160 | 141 | 147 | 195 |
| 35 years old and over | 132 | 145 | 162 | 152 | 187 | 220 | 253 | 232 | 238 | 240 | 210 | 184 | 215 | 256 |
| **Women, full-time** | 3,620 | 3,775 | 3,921 | 4,013 | 4,186 | 4,235 | 4,237 | 4,283 | 4,321 | 4,452 | 4,548 | 4,630 | 4,761 | 4,899 |
| 14 to 17 years old | 76 | 99 | 93 | 73 | 76 | 93 | 55 | 67 | 69 | 95 | 75 | 54 | 66 | 74 |
| 18 to 19 years old | 1,341 | 1,357 | 1,383 | 1,318 | 1,325 | 1,253 | 1,291 | 1,240 | 1,296 | 1,426 | 1,380 | 1,555 | 1,576 | 1,682 |
| 20 to 21 years old | 1,021 | 1,076 | 1,047 | 1,096 | 1,239 | 1,183 | 1,145 | 1,149 | 1,111 | 1,148 | 1,201 | 1,142 | 1,236 | 1,296 |
| 22 to 24 years old | 536 | 520 | 604 | 608 | 650 | 739 | 716 | 740 | 729 | 740 | 836 | 787 | 874 | 814 |
| 25 to 29 years old | 296 | 287 | 301 | 369 | 364 | 353 | 396 | 412 | 455 | 467 | 422 | 466 | 437 | 463 |
| 30 to 34 years old | 139 | 192 | 182 | 231 | 208 | 235 | 244 | 247 | 247 | 240 | 217 | 226 | 190 | 227 |
| 35 years old and over | 211 | 244 | 311 | 319 | 325 | 377 | 390 | 428 | 415 | 336 | 416 | 400 | 381 | 343 |
| **Part-time, total** | 5,536 | 5,618 | 5,878 | 5,998 | 6,244 | 6,325 | 6,177 | 6,141 | 6,133 | 6,065 | 6,064 | 5,944 | 6,005 | 6,303 |
| 14 to 17 years old | 117 | 29 | 32 | 32 | 9 | 7 | 35 | 19 | 25 | 65 | 48 | 26 | 14 | 20 |
| 18 to 19 years old | 444 | 412 | 370 | 402 | 399 | 402 | 470 | 466 | 507 | 485 | 526 | 588 | 566 | 599 |
| 20 to 21 years old | 591 | 559 | 487 | 610 | 578 | 616 | 526 | 546 | 596 | 542 | 600 | 540 | 624 | 644 |
| 22 to 24 years old | 794 | 825 | 885 | 794 | 840 | 933 | 958 | 930 | 894 | 727 | 869 | 813 | 772 | 964 |
| 25 to 29 years old | 1,096 | 1,070 | 1,312 | 1,213 | 1,242 | 1,254 | 1,163 | 1,116 | 1,212 | 1,217 | 1,101 | 1,101 | 1,016 | 1,083 |
| 30 to 34 years old | 945 | 933 | 973 | 935 | 1,033 | 1,046 | 921 | 973 | 805 | 813 | 732 | 828 | 807 | 843 |
| 35 years old and over | 1,549 | 1,790 | 1,819 | 2,012 | 2,143 | 2,068 | 2,104 | 2,091 | 2,093 | 2,216 | 2,188 | 2,048 | 2,205 | 2,150 |
| **Men, part-time** | 2,321 | 2,340 | 2,458 | 2,476 | 2,572 | 2,597 | 2,537 | 2,517 | 2,535 | 2,502 | 2,506 | 2,436 | 2,465 | 2,611 |
| 14 to 17 years old | 57 | 7 | 17 | 16 | 9 | 4 | 17 | 11 | 7 | 20 | 9 | 5 | 8 | 11 |
| 18 to 19 years old | 199 | 172 | 144 | 191 | 158 | 176 | 210 | 220 | 246 | 228 | 260 | 296 | 270 | 333 |
| 20 to 21 years old | 279 | 300 | 244 | 313 | 285 | 258 | 281 | 235 | 283 | 260 | 300 | 245 | 266 | 276 |
| 22 to 24 years old | 346 | 408 | 388 | 365 | 415 | 417 | 448 | 427 | 365 | 319 | 430 | 350 | 302 | 454 |
| 25 to 29 years old | 567 | 461 | 627 | 539 | 584 | 577 | 460 | 479 | 508 | 547 | 497 | 485 | 458 | 447 |
| 30 to 34 years old | 381 | 431 | 411 | 381 | 440 | 453 | 404 | 408 | 378 | 334 | 283 | 322 | 368 | 332 |
| 35 years old and over | 492 | 561 | 619 | 672 | 682 | 713 | 717 | 737 | 748 | 793 | 728 | 733 | 792 | 757 |
| **Women, part-time** | 3,214 | 3,278 | 3,420 | 3,521 | 3,671 | 3,728 | 3,640 | 3,624 | 3,598 | 3,563 | 3,559 | 3,508 | 3,540 | 3,692 |
| 14 to 17 years old | 61 | 22 | 15 | 17 | 0 | 3 | 18 | 8 | 18 | 45 | 39 | 21 | 6 | 9 |
| 18 to 19 years old | 244 | 240 | 226 | 211 | 241 | 226 | 261 | 245 | 261 | 257 | 267 | 292 | 297 | 266 |
| 20 to 21 years old | 312 | 260 | 243 | 297 | 294 | 358 | 245 | 311 | 313 | 282 | 300 | 295 | 359 | 368 |
| 22 to 24 years old | 448 | 417 | 497 | 429 | 425 | 516 | 510 | 504 | 529 | 407 | 439 | 463 | 470 | 510 |
| 25 to 29 years old | 528 | 609 | 685 | 674 | 658 | 677 | 702 | 637 | 704 | 670 | 605 | 617 | 558 | 636 |
| 30 to 34 years old | 564 | 503 | 562 | 554 | 593 | 593 | 517 | 565 | 427 | 479 | 449 | 506 | 439 | 511 |
| 35 years old and over | 1,056 | 1,229 | 1,200 | 1,340 | 1,461 | 1,355 | 1,386 | 1,354 | 1,345 | 1,423 | 1,460 | 1,315 | 1,412 | 1,393 |

**Table 11.—Total enrollment in all degree-granting institutions, by sex, age, and attendance status, with middle alternative projections: Fall 1987 to fall 2012—Continued**

(In thousands)

| Sex, age, and attendance status | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Men and women, total** | 15,442 | 15,608 | 15,756 | 15,947 | 16,135 | 16,321 | 16,503 | 16,738 | 16,978 | 17,185 | 17,418 | 17,673 |
| 14 to 17 years old | 162 | 178 | 187 | 194 | 202 | 210 | 220 | 223 | 224 | 222 | 223 | 225 |
| 18 to 19 years old | 3,511 | 3,552 | 3,575 | 3,670 | 3,710 | 3,764 | 3,847 | 3,974 | 4,075 | 4,088 | 4,066 | 4,043 |
| 20 to 21 years old | 3,118 | 3,161 | 3,203 | 3,189 | 3,234 | 3,304 | 3,330 | 3,372 | 3,445 | 3,561 | 3,661 | 3,702 |
| 22 to 24 years old | 2,578 | 2,605 | 2,634 | 2,679 | 2,703 | 2,704 | 2,727 | 2,751 | 2,786 | 2,819 | 2,884 | 2,999 |
| 25 to 29 years old | 1,925 | 1,923 | 1,948 | 1,998 | 2,062 | 2,128 | 2,183 | 2,232 | 2,264 | 2,288 | 2,326 | 2,368 |
| 30 to 34 years old | 1,280 | 1,287 | 1,289 | 1,283 | 1,275 | 1,258 | 1,265 | 1,287 | 1,320 | 1,361 | 1,409 | 1,460 |
| 35 years old and over | 2,868 | 2,902 | 2,920 | 2,934 | 2,948 | 2,953 | 2,931 | 2,899 | 2,864 | 2,846 | 2,849 | 2,877 |
| **Men, total** | 6,772 | 6,817 | 6,860 | 6,919 | 6,985 | 7,052 | 7,124 | 7,216 | 7,309 | 7,380 | 7,460 | 7,542 |
| 14 to 17 years old | 77 | 87 | 94 | 97 | 101 | 104 | 109 | 110 | 109 | 108 | 107 | 107 |
| 18 to 19 years old | 1,594 | 1,592 | 1,603 | 1,639 | 1,654 | 1,673 | 1,707 | 1,760 | 1,801 | 1,801 | 1,787 | 1,773 |
| 20 to 21 years old | 1,444 | 1,472 | 1,490 | 1,480 | 1,498 | 1,529 | 1,539 | 1,554 | 1,584 | 1,634 | 1,674 | 1,686 |
| 22 to 24 years old | 1,256 | 1,268 | 1,277 | 1,297 | 1,307 | 1,306 | 1,317 | 1,326 | 1,340 | 1,352 | 1,379 | 1,428 |
| 25 to 29 years old | 865 | 875 | 890 | 915 | 946 | 977 | 1,002 | 1,024 | 1,037 | 1,045 | 1,059 | 1,074 |
| 30 to 34 years old | 523 | 521 | 517 | 512 | 507 | 499 | 501 | 509 | 521 | 536 | 553 | 570 |
| 35 years old and over | 1,013 | 1,002 | 990 | 980 | 972 | 964 | 950 | 933 | 916 | 905 | 901 | 904 |
| **Women, total** | 8,670 | 8,791 | 8,896 | 9,027 | 9,150 | 9,269 | 9,380 | 9,522 | 9,669 | 9,805 | 9,958 | 10,131 |
| 14 to 17 years old | 85 | 90 | 94 | 97 | 101 | 106 | 111 | 114 | 115 | 114 | 116 | 118 |
| 18 to 19 years old | 1,917 | 1,960 | 1,972 | 2,031 | 2,056 | 2,091 | 2,140 | 2,214 | 2,274 | 2,288 | 2,279 | 2,270 |
| 20 to 21 years old | 1,674 | 1,689 | 1,714 | 1,708 | 1,735 | 1,775 | 1,791 | 1,818 | 1,860 | 1,927 | 1,987 | 2,016 |
| 22 to 24 years old | 1,323 | 1,338 | 1,356 | 1,382 | 1,396 | 1,398 | 1,411 | 1,425 | 1,446 | 1,467 | 1,505 | 1,570 |
| 25 to 29 years old | 1,060 | 1,048 | 1,058 | 1,083 | 1,117 | 1,152 | 1,181 | 1,209 | 1,227 | 1,243 | 1,267 | 1,294 |
| 30 to 34 years old | 757 | 766 | 772 | 771 | 768 | 759 | 764 | 778 | 799 | 825 | 856 | 889 |
| 35 years old and over | 1,855 | 1,900 | 1,930 | 1,955 | 1,976 | 1,989 | 1,982 | 1,966 | 1,948 | 1,941 | 1,948 | 1,973 |
| **Full-time, total** | 9,141 | 9,281 | 9,358 | 9,481 | 9,615 | 9,761 | 9,904 | 10,089 | 10,276 | 10,422 | 10,580 | 10,749 |
| 14 to 17 years old | 134 | 149 | 157 | 164 | 171 | 178 | 187 | 190 | 191 | 189 | 190 | 192 |
| 18 to 19 years old | 2,925 | 2,987 | 3,016 | 3,109 | 3,155 | 3,211 | 3,289 | 3,403 | 3,494 | 3,508 | 3,494 | 3,482 |
| 20 to 21 years old | 2,494 | 2,547 | 2,589 | 2,583 | 2,627 | 2,688 | 2,713 | 2,749 | 2,810 | 2,906 | 2,992 | 3,032 |
| 22 to 24 years old | 1,675 | 1,705 | 1,721 | 1,750 | 1,767 | 1,768 | 1,783 | 1,798 | 1,820 | 1,841 | 1,887 | 1,970 |
| 25 to 29 years old | 850 | 837 | 835 | 848 | 873 | 900 | 921 | 940 | 952 | 961 | 980 | 1,005 |
| 30 to 34 years old | 414 | 411 | 406 | 402 | 399 | 394 | 395 | 401 | 411 | 423 | 440 | 459 |
| 35 years old and over | 649 | 645 | 633 | 626 | 624 | 623 | 616 | 607 | 598 | 593 | 597 | 609 |
| **Men, full-time** | 4,220 | 4,258 | 4,278 | 4,313 | 4,361 | 4,416 | 4,472 | 4,544 | 4,615 | 4,663 | 4,717 | 4,772 |
| 14 to 17 years old | 61 | 71 | 77 | 81 | 84 | 87 | 91 | 92 | 91 | 90 | 89 | 89 |
| 18 to 19 years old | 1,304 | 1,313 | 1,328 | 1,362 | 1,380 | 1,401 | 1,433 | 1,480 | 1,516 | 1,517 | 1,507 | 1,498 |
| 20 to 21 years old | 1,171 | 1,197 | 1,211 | 1,202 | 1,218 | 1,243 | 1,251 | 1,263 | 1,287 | 1,326 | 1,360 | 1,371 |
| 22 to 24 years old | 851 | 865 | 869 | 880 | 886 | 885 | 892 | 898 | 906 | 913 | 932 | 968 |
| 25 to 29 years old | 411 | 410 | 410 | 416 | 429 | 442 | 452 | 460 | 465 | 467 | 474 | 483 |
| 30 to 34 years old | 182 | 176 | 171 | 167 | 165 | 162 | 162 | 164 | 167 | 171 | 177 | 183 |
| 35 years old and over | 240 | 226 | 213 | 204 | 199 | 196 | 191 | 186 | 182 | 178 | 177 | 179 |
| **Women, full-time** | 4,922 | 5,023 | 5,079 | 5,168 | 5,254 | 5,345 | 5,432 | 5,546 | 5,661 | 5,759 | 5,863 | 5,977 |
| 14 to 17 years old | 73 | 77 | 80 | 83 | 87 | 91 | 96 | 98 | 99 | 99 | 100 | 103 |
| 18 to 19 years old | 1,621 | 1,675 | 1,688 | 1,747 | 1,774 | 1,810 | 1,856 | 1,923 | 1,978 | 1,991 | 1,987 | 1,984 |
| 20 to 21 years old | 1,323 | 1,350 | 1,378 | 1,380 | 1,409 | 1,445 | 1,462 | 1,486 | 1,523 | 1,579 | 1,632 | 1,661 |
| 22 to 24 years old | 824 | 840 | 853 | 870 | 881 | 882 | 891 | 900 | 914 | 928 | 955 | 1,002 |
| 25 to 29 years old | 439 | 428 | 426 | 432 | 445 | 458 | 469 | 480 | 487 | 494 | 506 | 522 |
| 30 to 34 years old | 233 | 235 | 235 | 235 | 234 | 232 | 233 | 237 | 244 | 252 | 263 | 276 |
| 35 years old and over | 409 | 419 | 420 | 421 | 425 | 427 | 425 | 421 | 417 | 415 | 419 | 430 |
| **Part-time, total** | 6,300 | 6,327 | 6,398 | 6,465 | 6,519 | 6,561 | 6,600 | 6,649 | 6,702 | 6,763 | 6,838 | 6,924 |
| 14 to 17 years old | 28 | 29 | 30 | 30 | 31 | 32 | 33 | 34 | 33 | 33 | 33 | 33 |
| 18 to 19 years old | 586 | 565 | 559 | 560 | 555 | 553 | 558 | 571 | 581 | 580 | 571 | 560 |
| 20 to 21 years old | 624 | 614 | 614 | 606 | 607 | 615 | 617 | 623 | 635 | 655 | 670 | 670 |
| 22 to 24 years old | 903 | 901 | 912 | 929 | 936 | 937 | 944 | 952 | 966 | 978 | 997 | 1,028 |
| 25 to 29 years old | 1,075 | 1,086 | 1,113 | 1,150 | 1,189 | 1,229 | 1,262 | 1,292 | 1,312 | 1,327 | 1,346 | 1,364 |
| 30 to 34 years old | 866 | 876 | 883 | 881 | 876 | 864 | 870 | 886 | 909 | 938 | 970 | 1,001 |
| 35 years old and over | 2,219 | 2,257 | 2,287 | 2,309 | 2,324 | 2,330 | 2,315 | 2,292 | 2,266 | 2,253 | 2,252 | 2,268 |
| **Men, part-time** | 2,552 | 2,559 | 2,582 | 2,606 | 2,624 | 2,637 | 2,652 | 2,672 | 2,694 | 2,717 | 2,743 | 2,771 |
| 14 to 17 years old | 17 | 16 | 16 | 17 | 17 | 17 | 18 | 18 | 18 | 18 | 18 | 17 |
| 18 to 19 years old | 289 | 280 | 275 | 276 | 273 | 272 | 274 | 280 | 285 | 284 | 280 | 275 |
| 20 to 21 years old | 273 | 274 | 279 | 278 | 281 | 286 | 288 | 291 | 297 | 307 | 314 | 314 |
| 22 to 24 years old | 405 | 403 | 409 | 417 | 420 | 421 | 424 | 428 | 434 | 439 | 447 | 460 |
| 25 to 29 years old | 455 | 465 | 481 | 499 | 517 | 535 | 550 | 563 | 572 | 578 | 585 | 591 |
| 30 to 34 years old | 341 | 345 | 346 | 345 | 342 | 337 | 339 | 345 | 354 | 365 | 376 | 387 |
| 35 years old and over | 773 | 776 | 777 | 775 | 773 | 769 | 759 | 747 | 734 | 727 | 723 | 725 |
| **Women, part-time** | 3,748 | 3,768 | 3,816 | 3,859 | 3,896 | 3,924 | 3,948 | 3,977 | 4,008 | 4,046 | 4,095 | 4,154 |
| 14 to 17 years old | 11 | 13 | 13 | 14 | 14 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| 18 to 19 years old | 296 | 285 | 284 | 284 | 282 | 281 | 284 | 291 | 296 | 296 | 292 | 286 |
| 20 to 21 years old | 351 | 340 | 336 | 328 | 326 | 330 | 329 | 332 | 338 | 348 | 355 | 356 |
| 22 to 24 years old | 498 | 498 | 504 | 512 | 516 | 516 | 520 | 524 | 532 | 539 | 550 | 568 |
| 25 to 29 years old | 621 | 621 | 633 | 651 | 672 | 694 | 712 | 729 | 740 | 749 | 761 | 772 |
| 30 to 34 years old | 524 | 531 | 536 | 537 | 534 | 527 | 531 | 541 | 555 | 573 | 593 | 613 |
| 35 years old and over | 1,446 | 1,481 | 1,510 | 1,533 | 1,551 | 1,562 | 1,557 | 1,545 | 1,531 | 1,526 | 1,528 | 1,543 |

NOTE: Detail may not sum to totals due to rounding. Some data have been revised from previously published figures.
Data by age are based on the distribution by age from the Bureau of the Census. Mean absolute percentage errors of selected education statistics can be found in table A2.
Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011.*)

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; Enrollment in Degree-Granting Institutions Model; and U.S. Department of Commerce, Bureau of the Census, *Current Population Reports,* "Social and Economic Characteristics of Students," various years. (This table was prepared May 2002.)

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**Table 12.—Total enrollment in all degree-granting institutions, by sex, age, and attendance status, with low alternative projections: Fall 1992, 1997, 2000, 2007, and 2012**

(In thousands)

| Sex, age, and attendance status | 1992 | 1997 | 2000 | 2007 | 2012 |
|---|---|---|---|---|---|
| **Men and women, total** | **14,486** | **14,502** | **15,312** | **16,088** | **17,142** |
| 14 to 17 years old | 186 | 171 | 145 | 213 | 218 |
| 18 to 19 years old | 2,784 | 3,061 | 3,531 | 3,732 | 3,921 |
| 20 to 21 years old | 2,883 | 2,875 | 3,045 | 3,230 | 3,591 |
| 22 to 24 years old | 2,527 | 2,475 | 2,617 | 2,646 | 2,909 |
| 25 to 29 years old | 1,985 | 1,999 | 1,960 | 2,117 | 2,297 |
| 30 to 34 years old | 1,456 | 1,109 | 1,265 | 1,227 | 1,416 |
| 35 years old and over | 2,665 | 2,814 | 2,749 | 2,843 | 2,791 |
| **Men, total** | **6,524** | **6,396** | **6,722** | **6,910** | **7,316** |
| 14 to 17 years old | 89 | 56 | 63 | 105 | 104 |
| 18 to 19 years old | 1,305 | 1,414 | 1,583 | 1,656 | 1,720 |
| 20 to 21 years old | 1,342 | 1,374 | 1,382 | 1,492 | 1,635 |
| 22 to 24 years old | 1,272 | 1,200 | 1,293 | 1,277 | 1,385 |
| 25 to 29 years old | 955 | 972 | 862 | 972 | 1,042 |
| 30 to 34 years old | 627 | 443 | 527 | 486 | 553 |
| 35 years old and over | 933 | 938 | 1,012 | 921 | 877 |
| **Women, total** | **7,963** | **8,106** | **8,591** | **9,098** | **9,826** |
| 14 to 17 years old | 97 | 115 | 82 | 108 | 114 |
| 18 to 19 years old | 1,479 | 1,647 | 1,948 | 2,076 | 2,202 |
| 20 to 21 years old | 1,541 | 1,501 | 1,663 | 1,738 | 1,956 |
| 22 to 24 years old | 1,255 | 1,275 | 1,324 | 1,369 | 1,523 |
| 25 to 29 years old | 1,030 | 1,027 | 1,099 | 1,145 | 1,255 |
| 30 to 34 years old | 828 | 666 | 738 | 741 | 863 |
| 35 years old and over | 1,732 | 1,877 | 1,736 | 1,922 | 1,914 |
| **Full-time, total** | **8,161** | **8,438** | **9,010** | **9,607** | **10,427** |
| 14 to 17 years old | 179 | 123 | 125 | 181 | 186 |
| 18 to 19 years old | 2,382 | 2,534 | 2,932 | 3,190 | 3,378 |
| 20 to 21 years old | 2,267 | 2,275 | 2,401 | 2,631 | 2,941 |
| 22 to 24 years old | 1,594 | 1,606 | 1,653 | 1,730 | 1,911 |
| 25 to 29 years old | 731 | 897 | 878 | 893 | 975 |
| 30 to 34 years old | 409 | 377 | 422 | 384 | 445 |
| 35 years old and over | 598 | 626 | 599 | 597 | 591 |
| **Men, full-time** | **3,926** | **3,890** | **4,111** | **4,337** | **4,630** |
| 14 to 17 years old | 86 | 48 | 51 | 88 | 87 |
| 18 to 19 years old | 1,130 | 1,154 | 1,250 | 1,390 | 1,453 |
| 20 to 21 years old | 1,084 | 1,074 | 1,106 | 1,213 | 1,330 |
| 22 to 24 years old | 854 | 770 | 839 | 866 | 939 |
| 25 to 29 years old | 378 | 475 | 415 | 438 | 468 |
| 30 to 34 years old | 174 | 160 | 195 | 157 | 178 |
| 35 years old and over | 220 | 210 | 256 | 185 | 174 |
| **Women, full-time** | **4,235** | **4,548** | **4,899** | **5,269** | **5,798** |
| 14 to 17 years old | 93 | 75 | 74 | 93 | 100 |
| 18 to 19 years old | 1,253 | 1,380 | 1,682 | 1,800 | 1,924 |
| 20 to 21 years old | 1,183 | 1,201 | 1,296 | 1,418 | 1,611 |
| 22 to 24 years old | 739 | 836 | 814 | 864 | 972 |
| 25 to 29 years old | 353 | 422 | 463 | 455 | 506 |
| 30 to 34 years old | 235 | 217 | 227 | 226 | 268 |
| 35 years old and over | 377 | 416 | 343 | 412 | 417 |
| **Part-time, total** | **6,325** | **6,064** | **6,303** | **6,482** | **6,718** |
| 14 to 17 years old | 7 | 48 | 20 | 32 | 32 |
| 18 to 19 years old | 402 | 526 | 599 | 541 | 544 |
| 20 to 21 years old | 616 | 600 | 644 | 599 | 650 |
| 22 to 24 years old | 933 | 869 | 964 | 916 | 998 |
| 25 to 29 years old | 1,254 | 1,101 | 1,083 | 1,224 | 1,323 |
| 30 to 34 years old | 1,046 | 732 | 843 | 844 | 971 |
| 35 years old and over | 2,068 | 2,188 | 2,150 | 2,246 | 2,200 |
| **Men, part-time** | **2,597** | **2,506** | **2,611** | **2,572** | **2,687** |
| 14 to 17 years old | 4 | 9 | 11 | 17 | 17 |
| 18 to 19 years old | 176 | 260 | 333 | 266 | 266 |
| 20 to 21 years old | 258 | 300 | 276 | 279 | 305 |
| 22 to 24 years old | 417 | 430 | 454 | 412 | 446 |
| 25 to 29 years old | 577 | 497 | 447 | 534 | 574 |
| 30 to 34 years old | 453 | 283 | 332 | 329 | 376 |
| 35 years old and over | 713 | 728 | 757 | 736 | 704 |
| **Women, part-time** | **3,728** | **3,559** | **3,692** | **3,830** | **4,029** |
| 14 to 17 years old | 3 | 39 | 9 | 15 | 15 |
| 18 to 19 years old | 226 | 267 | 266 | 276 | 277 |
| 20 to 21 years old | 358 | 300 | 368 | 320 | 345 |
| 22 to 24 years old | 516 | 439 | 510 | 504 | 551 |
| 25 to 29 years old | 677 | 605 | 636 | 690 | 749 |
| 30 to 34 years old | 593 | 449 | 511 | 515 | 595 |
| 35 years old and over | 1,355 | 1,460 | 1,393 | 1,510 | 1,497 |

NOTE: Some data have been revised from previously published figures. Data for 2007 and 2012 are projected. Data by age are based on the distribution by age from the Bureau of the Census. (For more details, see appendix E of *Projections of Education Statistics to 2011.*)

Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; Enrollment in Degree-Granting Institutions Model; and U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, "Social and Economic Characteristics of Students," various years. (This table was prepared May 2002.)

**Table 13.—Total enrollment in all degree-granting institutions, by sex, age, and attendance status, with high alternative projections: Fall 1992, 1997, 2000, 2007, and 2012**

(In thousands)

| Sex, age, and attendance status | 1992 | 1997 | 2000 | 2007 | 2012 |
|---|---|---|---|---|---|
| **Men and women, total** | **14,486** | **14,502** | **15,312** | **16,999** | **18,203** |
| 14 to 17 years old | 186 | 171 | 145 | 227 | 231 |
| 18 to 19 years old | 2,784 | 3,061 | 3,531 | 3,963 | 4,164 |
| 20 to 21 years old | 2,883 | 2,875 | 3,045 | 3,430 | 3,813 |
| 22 to 24 years old | 2,527 | 2,475 | 2,617 | 2,809 | 3,089 |
| 25 to 29 years old | 1,985 | 1,999 | 1,960 | 2,248 | 2,439 |
| 30 to 34 years old | 1,456 | 1,109 | 1,265 | 1,303 | 1,503 |
| 35 years old and over | 2,665 | 2,814 | 2,749 | 3,019 | 2,964 |
| **Men, total** | **6,524** | **6,396** | **6,722** | **7,339** | **7,769** |
| 14 to 17 years old | 89 | 56 | 63 | 112 | 110 |
| 18 to 19 years old | 1,305 | 1,414 | 1,583 | 1,758 | 1,826 |
| 20 to 21 years old | 1,342 | 1,374 | 1,382 | 1,585 | 1,736 |
| 22 to 24 years old | 1,272 | 1,200 | 1,293 | 1,356 | 1,471 |
| 25 to 29 years old | 955 | 972 | 862 | 1,032 | 1,106 |
| 30 to 34 years old | 627 | 443 | 527 | 516 | 587 |
| 35 years old and over | 933 | 938 | 1,012 | 978 | 932 |
| **Women, total** | **7,963** | **8,106** | **8,591** | **9,661** | **10,434** |
| 14 to 17 years old | 97 | 115 | 82 | 115 | 121 |
| 18 to 19 years old | 1,479 | 1,647 | 1,948 | 2,204 | 2,338 |
| 20 to 21 years old | 1,541 | 1,501 | 1,663 | 1,845 | 2,077 |
| 22 to 24 years old | 1,255 | 1,275 | 1,324 | 1,453 | 1,618 |
| 25 to 29 years old | 1,030 | 1,027 | 1,099 | 1,216 | 1,333 |
| 30 to 34 years old | 828 | 666 | 738 | 787 | 916 |
| 35 years old and over | 1,732 | 1,877 | 1,736 | 2,041 | 2,032 |
| **Full-time, total** | **8,161** | **8,438** | **9,010** | **10,201** | **11,071** |
| 14 to 17 years old | 179 | 123 | 125 | 192 | 198 |
| 18 to 19 years old | 2,382 | 2,534 | 2,932 | 3,388 | 3,587 |
| 20 to 21 years old | 2,267 | 2,275 | 2,401 | 2,794 | 3,123 |
| 22 to 24 years old | 1,594 | 1,606 | 1,653 | 1,837 | 2,029 |
| 25 to 29 years old | 731 | 897 | 878 | 949 | 1,035 |
| 30 to 34 years old | 409 | 377 | 422 | 407 | 473 |
| 35 years old and over | 598 | 626 | 599 | 634 | 627 |
| **Men, full-time** | **3,926** | **3,890** | **4,111** | **4,606** | **4,915** |
| 14 to 17 years old | 86 | 48 | 51 | 94 | 92 |
| 18 to 19 years old | 1,130 | 1,154 | 1,250 | 1,476 | 1,543 |
| 20 to 21 years old | 1,084 | 1,074 | 1,106 | 1,288 | 1,412 |
| 22 to 24 years old | 854 | 770 | 839 | 919 | 997 |
| 25 to 29 years old | 378 | 475 | 415 | 465 | 497 |
| 30 to 34 years old | 174 | 160 | 195 | 167 | 189 |
| 35 years old and over | 220 | 210 | 256 | 197 | 184 |
| **Women, full-time** | **4,235** | **4,548** | **4,899** | **5,595** | **6,156** |
| 14 to 17 years old | 93 | 75 | 74 | 99 | 106 |
| 18 to 19 years old | 1,253 | 1,380 | 1,682 | 1,911 | 2,043 |
| 20 to 21 years old | 1,183 | 1,201 | 1,296 | 1,506 | 1,710 |
| 22 to 24 years old | 739 | 836 | 814 | 918 | 1,032 |
| 25 to 29 years old | 353 | 422 | 463 | 483 | 538 |
| 30 to 34 years old | 235 | 217 | 227 | 240 | 284 |
| 35 years old and over | 377 | 416 | 343 | 437 | 443 |
| **Part-time, total** | **6,325** | **6,064** | **6,303** | **6,798** | **7,132** |
| 14 to 17 years old | 7 | 48 | 20 | 34 | 34 |
| 18 to 19 years old | 402 | 526 | 599 | 575 | 577 |
| 20 to 21 years old | 616 | 600 | 644 | 636 | 690 |
| 22 to 24 years old | 933 | 869 | 964 | 972 | 1,059 |
| 25 to 29 years old | 1,254 | 1,101 | 1,083 | 1,299 | 1,405 |
| 30 to 34 years old | 1,046 | 732 | 843 | 896 | 1,031 |
| 35 years old and over | 2,068 | 2,188 | 2,150 | 2,385 | 2,336 |
| **Men, part-time** | **2,597** | **2,506** | **2,611** | **2,731** | **2,854** |
| 14 to 17 years old | 4 | 9 | 11 | 18 | 18 |
| 18 to 19 years old | 176 | 260 | 333 | 282 | 283 |
| 20 to 21 years old | 258 | 300 | 276 | 296 | 324 |
| 22 to 24 years old | 417 | 430 | 454 | 437 | 474 |
| 25 to 29 years old | 577 | 497 | 447 | 567 | 609 |
| 30 to 34 years old | 453 | 283 | 332 | 349 | 399 |
| 35 years old and over | 713 | 728 | 757 | 781 | 747 |
| **Women, part-time** | **3,728** | **3,559** | **3,692** | **4,066** | **4,278** |
| 14 to 17 years old | 3 | 39 | 9 | 16 | 16 |
| 18 to 19 years old | 226 | 267 | 266 | 293 | 294 |
| 20 to 21 years old | 358 | 300 | 368 | 339 | 367 |
| 22 to 24 years old | 516 | 439 | 510 | 535 | 585 |
| 25 to 29 years old | 677 | 605 | 636 | 733 | 795 |
| 30 to 34 years old | 593 | 449 | 511 | 547 | 632 |
| 35 years old and over | 1,355 | 1,460 | 1,393 | 1,604 | 1,589 |

NOTE: Some data have been revised from previously published figures. Data for 2007 and 2012 are projected. Data by age are based on the distribution by age from the Bureau of the Census. (For more details, see appendix E of *Projections of Education Statistics to 2011.*)

Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; Enrollment in Degree-Granting Institutions Model; and U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, "Social and Economic Characteristics of Students," various years. (This table was prepared May 2002.)



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**Table 14.—Total enrollment in all degree-granting institutions, by sex and attendance status, with alternative projections: Fall 1987 to fall 2012**

(In thousands)

| Year | Total | Men | | Women | |
|---|---|---|---|---|---|
| | | Full-time | Part-time | Full-time | Part-time |
| 1987 | 12,767 | 3,611 | 2,321 | 3,620 | 3,214 |
| 1988 | 13,055 | 3,662 | 2,340 | 3,775 | 3,278 |
| 1989 | 13,539 | 3,740 | 2,450 | 3,921 | 3,428 |
| 1990 | 13,819 | 3,808 | 2,476 | 4,013 | 3,521 |
| 1991 | 14,359 | 3,929 | 2,572 | 4,186 | 3,671 |
| 1992 | 14,486 | 3,926 | 2,597 | 4,235 | 3,728 |
| 1993 | 14,305 | 3,891 | 2,537 | 4,237 | 3,640 |
| 1994 | 14,279 | 3,855 | 2,517 | 4,283 | 3,624 |
| 1995 | 14,262 | 3,807 | 2,535 | 4,321 | 3,598 |
| 1996 | 14,368 | 3,851 | 2,502 | 4,452 | 3,563 |
| 1997 | 14,502 | 3,890 | 2,506 | 4,548 | 3,559 |
| 1998 | 14,507 | 3,934 | 2,436 | 4,630 | 3,508 |
| 1999 | 14,791 | 4,026 | 2,465 | 4,761 | 3,540 |
| 2000 | 15,312 | 4,111 | 2,611 | 4,899 | 3,692 |
| **Middle alternative projections** | | | | | |
| 2001 | 15,442 | 4,220 | 2,552 | 4,922 | 3,748 |
| 2002 | 15,608 | 4,258 | 2,559 | 5,023 | 3,768 |
| 2003 | 15,756 | 4,278 | 2,582 | 5,079 | 3,816 |
| 2004 | 15,947 | 4,313 | 2,606 | 5,168 | 3,859 |
| 2005 | 16,135 | 4,361 | 2,624 | 5,254 | 3,896 |
| 2006 | 16,321 | 4,416 | 2,637 | 5,345 | 3,924 |
| 2007 | 16,503 | 4,472 | 2,652 | 5,432 | 3,948 |
| 2008 | 16,738 | 4,544 | 2,672 | 5,546 | 3,977 |
| 2009 | 16,978 | 4,615 | 2,694 | 5,661 | 4,008 |
| 2010 | 17,185 | 4,663 | 2,717 | 5,759 | 4,046 |
| 2011 | 17,418 | 4,717 | 2,743 | 5,863 | 4,095 |
| 2012 | 17,673 | 4,772 | 2,771 | 5,977 | 4,154 |
| **Low alternative projections** | | | | | |
| 2001 | 15,288 | 4,178 | 2,526 | 4,873 | 3,711 |
| 2002 | 15,468 | 4,220 | 2,536 | 4,978 | 3,734 |
| 2003 | 15,614 | 4,239 | 2,559 | 5,033 | 3,782 |
| 2004 | 15,772 | 4,266 | 2,577 | 5,111 | 3,817 |
| 2005 | 15,780 | 4,265 | 2,566 | 5,138 | 3,810 |
| 2006 | 15,831 | 4,284 | 2,558 | 5,185 | 3,806 |
| 2007 | 16,008 | 4,338 | 2,572 | 5,269 | 3,830 |
| 2008 | 16,236 | 4,408 | 2,592 | 5,380 | 3,858 |
| 2009 | 16,469 | 4,477 | 2,613 | 5,491 | 3,888 |
| 2010 | 16,669 | 4,523 | 2,635 | 5,586 | 3,925 |
| 2011 | 16,895 | 4,575 | 2,661 | 5,687 | 3,972 |
| 2012 | 17,143 | 4,629 | 2,688 | 5,798 | 4,029 |
| **High alternative projections** | | | | | |
| 2001 | 15,596 | 4,262 | 2,578 | 4,971 | 3,785 |
| 2002 | 15,748 | 4,296 | 2,582 | 5,068 | 3,802 |
| 2003 | 15,898 | 4,317 | 2,605 | 5,125 | 3,850 |
| 2004 | 16,122 | 4,360 | 2,635 | 5,225 | 3,901 |
| 2005 | 16,490 | 4,457 | 2,682 | 5,370 | 3,982 |
| 2006 | 16,811 | 4,548 | 2,716 | 5,505 | 4,042 |
| 2007 | 16,998 | 4,606 | 2,732 | 5,595 | 4,066 |
| 2008 | 17,240 | 4,680 | 2,752 | 5,712 | 4,096 |
| 2009 | 17,487 | 4,753 | 2,775 | 5,831 | 4,128 |
| 2010 | 17,701 | 4,803 | 2,799 | 5,932 | 4,167 |
| 2011 | 17,941 | 4,859 | 2,825 | 6,039 | 4,218 |
| 2012 | 18,203 | 4,915 | 2,854 | 6,156 | 4,279 |

NOTE: Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures.

(For more details, see appendix E of *Projections of Education Statistics to 2011.*) Detail may not sum to totals due to rounding.

Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model. (This table was prepared May 2002.)

**Table 15.—Total enrollment in public 4-year degree-granting institutions, by sex and attendance status, with alternative projections: Fall 1987 to fall 2012**

(In thousands)

| Year | Total | Men | | Women | |
|---|---|---|---|---|---|
| | | Full-time | Part-time | Full-time | Part-time |
| 1987 | 5,432 | 1,882 | 723 | 1,854 | 973 |
| 1988 | 5,546 | 1,910 | 722 | 1,932 | 982 |
| 1989 | 5,694 | 1,938 | 743 | 1,997 | 1,017 |
| 1990 | 5,848 | 1,982 | 764 | 2,051 | 1,050 |
| 1991 | 5,905 | 2,006 | 765 | 2,083 | 1,051 |
| 1992 | 5,900 | 2,005 | 760 | 2,090 | 1,045 |
| 1993 | 5,852 | 1,989 | 750 | 2,085 | 1,027 |
| 1994 | 5,825 | 1,966 | 738 | 2,100 | 1,022 |
| 1995 | 5,815 | 1,951 | 720 | 2,134 | 1,009 |
| 1996 | 5,806 | 1,943 | 703 | 2,163 | 997 |
| 1997 | 5,835 | 1,951 | 687 | 2,214 | 984 |
| 1998 | 5,892 | 1,959 | 685 | 2,260 | 988 |
| 1999 | 5,970 | 1,984 | 686 | 2,309 | 991 |
| 2000 | 6,055 | 2,009 | 681 | 2,363 | 1,001 |
| **Middle alternative projections** | | | | | |
| 2001 | 6,206 | 2,086 | 695 | 2,389 | 1,036 |
| 2002 | 6,287 | 2,105 | 699 | 2,438 | 1,045 |
| 2003 | 6,347 | 2,115 | 707 | 2,466 | 1,060 |
| 2004 | 6,426 | 2,131 | 714 | 2,508 | 1,073 |
| 2005 | 6,509 | 2,155 | 719 | 2,550 | 1,085 |
| 2006 | 6,592 | 2,181 | 723 | 2,595 | 1,093 |
| 2007 | 6,672 | 2,208 | 727 | 2,637 | 1,100 |
| 2008 | 6,773 | 2,242 | 732 | 2,691 | 1,108 |
| 2009 | 6,878 | 2,277 | 737 | 2,748 | 1,117 |
| 2010 | 6,972 | 2,303 | 744 | 2,797 | 1,128 |
| 2011 | 7,078 | 2,333 | 752 | 2,850 | 1,143 |
| 2012 | 7,192 | 2,363 | 762 | 2,906 | 1,161 |
| **Low alternative projections** | | | | | |
| 2001 | 6,144 | 2,065 | 688 | 2,365 | 1,026 |
| 2002 | 6,230 | 2,086 | 693 | 2,416 | 1,036 |
| 2003 | 6,290 | 2,096 | 701 | 2,444 | 1,050 |
| 2004 | 6,355 | 2,108 | 706 | 2,480 | 1,061 |
| 2005 | 6,366 | 2,108 | 703 | 2,494 | 1,061 |
| 2006 | 6,394 | 2,116 | 701 | 2,517 | 1,060 |
| 2007 | 6,472 | 2,142 | 705 | 2,558 | 1,067 |
| 2008 | 6,570 | 2,175 | 710 | 2,610 | 1,075 |
| 2009 | 6,672 | 2,209 | 715 | 2,666 | 1,083 |
| 2010 | 6,763 | 2,234 | 722 | 2,713 | 1,094 |
| 2011 | 6,866 | 2,263 | 729 | 2,765 | 1,109 |
| 2012 | 6,976 | 2,292 | 739 | 2,819 | 1,126 |
| **High alternative projections** | | | | | |
| 2001 | 6,268 | 2,107 | 702 | 2,413 | 1,046 |
| 2002 | 6,344 | 2,124 | 705 | 2,460 | 1,054 |
| 2003 | 6,404 | 2,134 | 713 | 2,488 | 1,070 |
| 2004 | 6,497 | 2,154 | 722 | 2,536 | 1,085 |
| 2005 | 6,652 | 2,202 | 735 | 2,606 | 1,109 |
| 2006 | 6,790 | 2,246 | 745 | 2,673 | 1,126 |
| 2007 | 6,872 | 2,274 | 749 | 2,716 | 1,133 |
| 2008 | 6,976 | 2,309 | 754 | 2,772 | 1,141 |
| 2009 | 7,084 | 2,345 | 759 | 2,830 | 1,151 |
| 2010 | 7,181 | 2,372 | 766 | 2,881 | 1,162 |
| 2011 | 7,290 | 2,403 | 775 | 2,936 | 1,177 |
| 2012 | 7,408 | 2,434 | 785 | 2,993 | 1,196 |

NOTE: Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011*.) Detail may not sum to totals due to rounding.

Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model. (This table was prepared May 2002.)



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**Table 16.—Total enrollment in public 2–year degree-granting institutions, by sex and attendance status, with alternative projections: Fall 1987 to fall 2012**

(In thousands)

| Year | Total | Men | | Women | |
|---|---|---|---|---|---|
| | | Full-time | Part-time | Full-time | Part-time |
| 1987 | 4,541 | 744 | 1,225 | 787 | 1,785 |
| 1988 | 4,615 | 746 | 1,231 | 822 | 1,817 |
| 1989 | 4,884 | 793 | 1,302 | 881 | 1,907 |
| 1990 | 4,996 | 811 | 1,318 | 906 | 1,962 |
| 1991 | 5,405 | 882 | 1,414 | 1,004 | 2,105 |
| 1992 | 5,485 | 878 | 1,431 | 1,037 | 2,138 |
| 1993 | 5,337 | 859 | 1,386 | 1,030 | 2,063 |
| 1994 | 5,308 | 848 | 1,379 | 1,038 | 2,044 |
| 1995 | 5,278 | 819 | 1,417 | 1,022 | 2,020 |
| 1996 | 5,314 | 833 | 1,423 | 1,039 | 2,019 |
| 1997 | 5,361 | 842 | 1,444 | 1,049 | 2,026 |
| 1998 | 5,246 | 841 | 1,383 | 1,040 | 1,981 |
| 1999 | 5,339 | 868 | 1,404 | 1,063 | 2,005 |
| 2000 | 5,697 | 891 | 1,549 | 1,109 | 2,148 |
| | | **Middle alternative projections** | | | |
| 2001 | 5,657 | 916 | 1,477 | 1,118 | 2,146 |
| 2002 | 5,699 | 926 | 1,477 | 1,143 | 2,153 |
| 2003 | 5,754 | 932 | 1,489 | 1,155 | 2,178 |
| 2004 | 5,821 | 943 | 1,502 | 1,177 | 2,199 |
| 2005 | 5,879 | 954 | 1,512 | 1,196 | 2,218 |
| 2006 | 5,936 | 966 | 1,519 | 1,217 | 2,233 |
| 2007 | 5,993 | 981 | 1,529 | 1,238 | 2,246 |
| 2008 | 6,069 | 999 | 1,541 | 1,265 | 2,263 |
| 2009 | 6,145 | 1,016 | 1,555 | 1,292 | 2,282 |
| 2010 | 6,207 | 1,024 | 1,568 | 1,312 | 2,303 |
| 2011 | 6,273 | 1,031 | 1,581 | 1,332 | 2,329 |
| 2012 | 6,345 | 1,038 | 1,595 | 1,355 | 2,358 |
| | | **Low alternative projections** | | | |
| 2001 | 5,600 | 907 | 1,462 | 1,107 | 2,125 |
| 2002 | 5,648 | 918 | 1,464 | 1,133 | 2,134 |
| 2003 | 5,702 | 924 | 1,476 | 1,145 | 2,158 |
| 2004 | 5,757 | 933 | 1,485 | 1,164 | 2,175 |
| 2005 | 5,750 | 933 | 1,479 | 1,170 | 2,169 |
| 2006 | 5,758 | 937 | 1,473 | 1,180 | 2,166 |
| 2007 | 5,813 | 952 | 1,483 | 1,201 | 2,179 |
| 2008 | 5,887 | 969 | 1,495 | 1,227 | 2,195 |
| 2009 | 5,961 | 986 | 1,508 | 1,253 | 2,214 |
| 2010 | 6,021 | 993 | 1,521 | 1,273 | 2,234 |
| 2011 | 6,085 | 1,000 | 1,534 | 1,292 | 2,259 |
| 2012 | 6,155 | 1,007 | 1,547 | 1,314 | 2,287 |
| | | **High alternative projections** | | | |
| 2001 | 5,714 | 925 | 1,492 | 1,129 | 2,167 |
| 2002 | 5,750 | 934 | 1,490 | 1,153 | 2,172 |
| 2003 | 5,806 | 940 | 1,502 | 1,165 | 2,198 |
| 2004 | 5,885 | 953 | 1,519 | 1,190 | 2,223 |
| 2005 | 6,008 | 975 | 1,545 | 1,222 | 2,267 |
| 2006 | 6,114 | 995 | 1,565 | 1,254 | 2,300 |
| 2007 | 6,173 | 1,010 | 1,575 | 1,275 | 2,313 |
| 2008 | 6,251 | 1,029 | 1,587 | 1,303 | 2,331 |
| 2009 | 6,329 | 1,046 | 1,602 | 1,331 | 2,350 |
| 2010 | 6,393 | 1,055 | 1,615 | 1,351 | 2,372 |
| 2011 | 6,461 | 1,062 | 1,628 | 1,372 | 2,399 |
| 2012 | 6,535 | 1,069 | 1,643 | 1,396 | 2,429 |

NOTE: Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011.*) Detail may not sum to totals due to rounding.

Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model. (This table was prepared May 2002.)

**Table 17.—Total enrollment in private 4–year degree-granting institutions, by sex and attendance status, with alternative projections: Fall 1987 to fall 2012**

(In thousands)

| Year | Total | Men | | Women | |
|---|---|---|---|---|---|
| | | Full-time | Part-time | Full-time | Part-time |
| 1987 | 2,558 | 909 | 346 | 878 | 426 |
| 1988 | 2,634 | 933 | 347 | 918 | 436 |
| 1989 | 2,693 | 933 | 360 | 938 | 463 |
| 1990 | 2,730 | 944 | 361 | 959 | 466 |
| 1991 | 2,802 | 962 | 367 | 990 | 483 |
| 1992 | 2,864 | 970 | 375 | 1,016 | 503 |
| 1993 | 2,887 | 973 | 369 | 1,037 | 508 |
| 1994 | 2,924 | 978 | 367 | 1,063 | 516 |
| 1995 | 2,955 | 978 | 364 | 1,089 | 523 |
| 1996 | 2,998 | 991 | 356 | 1,133 | 518 |
| 1997 | 3,061 | 1,008 | 360 | 1,170 | 523 |
| 1998 | 3,126 | 1,038 | 353 | 1,220 | 514 |
| 1999 | 3,229 | 1,073 | 360 | 1,276 | 519 |
| 2000 | 3,308 | 1,107 | 365 | 1,315 | 522 |
| **Middle alternative projections** | | | | | |
| 2001 | 3,319 | 1,115 | 364 | 1,300 | 540 |
| 2002 | 3,360 | 1,124 | 367 | 1,325 | 544 |
| 2003 | 3,390 | 1,127 | 370 | 1,340 | 552 |
| 2004 | 3,430 | 1,135 | 374 | 1,362 | 560 |
| 2005 | 3,474 | 1,147 | 377 | 1,385 | 566 |
| 2006 | 3,517 | 1,160 | 378 | 1,408 | 570 |
| 2007 | 3,558 | 1,174 | 380 | 1,430 | 574 |
| 2008 | 3,610 | 1,191 | 382 | 1,459 | 578 |
| 2009 | 3,664 | 1,209 | 385 | 1,489 | 582 |
| 2010 | 3,713 | 1,222 | 388 | 1,515 | 588 |
| 2011 | 3,770 | 1,239 | 392 | 1,544 | 595 |
| 2012 | 3,835 | 1,256 | 397 | 1,577 | 605 |
| **Low alternative projections** | | | | | |
| 2001 | 3,286 | 1,104 | 360 | 1,287 | 535 |
| 2002 | 3,330 | 1,114 | 364 | 1,313 | 539 |
| 2003 | 3,359 | 1,117 | 367 | 1,328 | 547 |
| 2004 | 3,392 | 1,123 | 370 | 1,347 | 554 |
| 2005 | 3,398 | 1,122 | 369 | 1,355 | 554 |
| 2006 | 3,411 | 1,125 | 367 | 1,366 | 553 |
| 2007 | 3,451 | 1,139 | 369 | 1,387 | 557 |
| 2008 | 3,502 | 1,155 | 371 | 1,415 | 561 |
| 2009 | 3,554 | 1,173 | 373 | 1,444 | 565 |
| 2010 | 3,602 | 1,185 | 376 | 1,470 | 570 |
| 2011 | 3,657 | 1,202 | 380 | 1,498 | 577 |
| 2012 | 3,720 | 1,218 | 385 | 1,530 | 587 |
| **High alternative projections** | | | | | |
| 2001 | 3,352 | 1,126 | 368 | 1,313 | 545 |
| 2002 | 3,390 | 1,134 | 370 | 1,337 | 549 |
| 2003 | 3,421 | 1,137 | 373 | 1,352 | 557 |
| 2004 | 3,468 | 1,147 | 378 | 1,377 | 566 |
| 2005 | 3,550 | 1,172 | 385 | 1,415 | 578 |
| 2006 | 3,623 | 1,195 | 389 | 1,450 | 587 |
| 2007 | 3,665 | 1,209 | 391 | 1,473 | 591 |
| 2008 | 3,718 | 1,227 | 393 | 1,503 | 595 |
| 2009 | 3,774 | 1,245 | 397 | 1,534 | 599 |
| 2010 | 3,824 | 1,259 | 400 | 1,560 | 606 |
| 2011 | 3,883 | 1,276 | 404 | 1,590 | 613 |
| 2012 | 3,950 | 1,294 | 409 | 1,624 | 623 |

NOTE: Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011.*) Detail may not sum to totals due to rounding.

Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model. (This table was prepared May 2002.)

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**Table 18.—Total enrollment in private 2–year degree-granting institutions, by sex and attendance status, with alternative projections: Fall 1987 to fall 2012**

(In thousands)

| Year | Total | Men | | Women | |
|---|---|---|---|---|---|
| | | Full-time | Part-time | Full-time | Part-time |
| 1987 | 235 | 76 | 28 | 102 | 29 |
| 1988 | 260 | 73 | 40 | 103 | 44 |
| 1989 | 267 | 76 | 45 | 105 | 41 |
| 1990 | 244 | 71 | 34 | 96 | 43 |
| 1991 | 247 | 80 | 27 | 109 | 32 |
| 1992 | 238 | 74 | 30 | 91 | 43 |
| 1993 | 229 | 70 | 31 | 85 | 43 |
| 1994 | 221 | 64 | 33 | 82 | 43 |
| 1995 | 215 | 60 | 33 | 77 | 45 |
| 1996 | 249 | 84 | 19 | 117 | 29 |
| 1997 | 245 | 89 | 14 | 115 | 26 |
| 1998 | 243 | 95 | 14 | 109 | 25 |
| 1999 | 253 | 101 | 15 | 112 | 25 |
| 2000 | 251 | 105 | 13 | 112 | 21 |
| **Middle alternative projections** | | | | | |
| 2001 | 259 | 102 | 16 | 115 | 26 |
| 2002 | 263 | 103 | 16 | 117 | 26 |
| 2003 | 265 | 104 | 16 | 119 | 27 |
| 2004 | 269 | 105 | 16 | 121 | 27 |
| 2005 | 273 | 106 | 16 | 123 | 27 |
| 2006 | 276 | 108 | 16 | 125 | 27 |
| 2007 | 280 | 109 | 17 | 127 | 27 |
| 2008 | 286 | 111 | 17 | 130 | 28 |
| 2009 | 291 | 113 | 17 | 133 | 28 |
| 2010 | 294 | 114 | 17 | 135 | 28 |
| 2011 | 297 | 115 | 17 | 137 | 28 |
| 2012 | 301 | 116 | 17 | 139 | 29 |
| **Low alternative projections** | | | | | |
| 2001 | 256 | 101 | 16 | 114 | 26 |
| 2002 | 261 | 102 | 16 | 116 | 26 |
| 2003 | 263 | 103 | 16 | 118 | 27 |
| 2004 | 266 | 104 | 16 | 120 | 27 |
| 2005 | 267 | 104 | 16 | 120 | 26 |
| 2006 | 268 | 105 | 16 | 121 | 26 |
| 2007 | 272 | 106 | 16 | 123 | 26 |
| 2008 | 277 | 108 | 16 | 126 | 27 |
| 2009 | 282 | 110 | 16 | 129 | 27 |
| 2010 | 285 | 111 | 16 | 131 | 27 |
| 2011 | 288 | 112 | 16 | 133 | 27 |
| 2012 | 292 | 113 | 16 | 135 | 28 |
| **High alternative projections** | | | | | |
| 2001 | 262 | 103 | 16 | 116 | 26 |
| 2002 | 265 | 104 | 16 | 118 | 26 |
| 2003 | 267 | 105 | 16 | 120 | 27 |
| 2004 | 272 | 106 | 16 | 122 | 27 |
| 2005 | 279 | 108 | 16 | 126 | 28 |
| 2006 | 284 | 111 | 16 | 129 | 28 |
| 2007 | 288 | 112 | 18 | 131 | 28 |
| 2008 | 295 | 114 | 18 | 134 | 29 |
| 2009 | 300 | 116 | 18 | 137 | 29 |
| 2010 | 303 | 117 | 18 | 139 | 29 |
| 2011 | 306 | 118 | 18 | 141 | 29 |
| 2012 | 310 | 119 | 18 | 143 | 30 |

NOTE: Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011.)* Detail may not sum to totals due to rounding.

Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model. (This table was prepared May 2002.)

**Table 19.—Total undergraduate enrollment in all degree-granting institutions, by sex, attendance status, and control of institution, with alternative projections: Fall 1987 to fall 2012**

(In thousands)

| Year | Total | Sex | | Attendance status | | Control | |
|---|---|---|---|---|---|---|---|
| | | Men | Women | Full-time | Part-time | Public | Private |
| 1987 | 11,046 | 5,069 | 5,978 | 6,463 | 4,584 | 8,919 | 2,128 |
| 1988 | 11,317 | 5,137 | 6,179 | 6,642 | 4,674 | 9,103 | 2,213 |
| 1989 | 11,743 | 5,311 | 6,431 | 6,841 | 4,901 | 9,488 | 2,255 |
| 1990 | 11,959 | 5,380 | 6,579 | 6,976 | 4,983 | 9,710 | 2,250 |
| 1991 | 12,439 | 5,571 | 6,868 | 7,222 | 5,217 | 10,148 | 2,291 |
| 1992 | 12,537 | 5,582 | 6,954 | 7,243 | 5,293 | 10,216 | 2,320 |
| 1993 | 12,324 | 5,484 | 6,840 | 7,179 | 5,145 | 10,012 | 2,312 |
| 1994 | 12,263 | 5,423 | 6,840 | 7,169 | 5,094 | 9,945 | 2,317 |
| 1995 | 12,232 | 5,402 | 6,831 | 7,146 | 5,087 | 9,904 | 2,328 |
| 1996 | 12,327 | 5,421 | 6,907 | 7,299 | 5,029 | 9,935 | 2,392 |
| 1997 | 12,451 | 5,469 | 6,982 | 7,419 | 5,032 | 10,007 | 2,443 |
| 1998 | 12,437 | 5,446 | 6,991 | 7,539 | 4,898 | 9,950 | 2,487 |
| 1999 | 12,681 | 5,560 | 7,122 | 7,735 | 4,947 | 10,110 | 2,571 |
| 2000 | 13,155 | 5,778 | 7,377 | 7,923 | 5,232 | 10,539 | 2,616 |
| **Middle alternative projections** | | | | | | | |
| 2001 | 13,278 | 5,818 | 7,459 | 8,060 | 5,217 | 10,629 | 2,648 |
| 2002 | 13,432 | 5,864 | 7,567 | 8,201 | 5,230 | 10,744 | 2,688 |
| 2003 | 13,566 | 5,910 | 7,657 | 8,281 | 5,286 | 10,851 | 2,716 |
| 2004 | 13,736 | 5,965 | 7,772 | 8,398 | 5,339 | 10,985 | 2,752 |
| 2005 | 13,901 | 6,024 | 7,877 | 8,520 | 5,381 | 11,112 | 2,789 |
| 2006 | 14,072 | 6,088 | 7,984 | 8,657 | 5,415 | 11,243 | 2,829 |
| 2007 | 14,238 | 6,154 | 8,084 | 8,789 | 5,449 | 11,371 | 2,867 |
| 2008 | 14,457 | 6,241 | 8,217 | 8,965 | 5,493 | 11,539 | 2,918 |
| 2009 | 14,681 | 6,328 | 8,352 | 9,139 | 5,541 | 11,711 | 2,970 |
| 2010 | 14,868 | 6,394 | 8,474 | 9,273 | 5,595 | 11,855 | 3,013 |
| 2011 | 15,063 | 6,460 | 8,602 | 9,407 | 5,655 | 12,006 | 3,057 |
| 2012 | 15,263 | 6,523 | 8,740 | 9,539 | 5,724 | 12,162 | 3,101 |
| **Low alternative projections** | | | | | | | |
| 2001 | 13,145 | 5,760 | 7,384 | 7,979 | 5,165 | 10,523 | 2,622 |
| 2002 | 13,311 | 5,811 | 7,499 | 8,127 | 5,183 | 10,647 | 2,664 |
| 2003 | 13,444 | 5,857 | 7,588 | 8,206 | 5,238 | 10,753 | 2,692 |
| 2004 | 13,585 | 5,899 | 7,687 | 8,306 | 5,280 | 10,864 | 2,722 |
| 2005 | 13,595 | 5,891 | 7,704 | 8,333 | 5,263 | 10,868 | 2,728 |
| 2006 | 13,650 | 5,905 | 7,744 | 8,397 | 5,253 | 10,906 | 2,744 |
| 2007 | 13,811 | 5,969 | 7,841 | 8,525 | 5,286 | 11,030 | 2,781 |
| 2008 | 14,023 | 6,054 | 7,970 | 8,696 | 5,328 | 11,193 | 2,830 |
| 2009 | 14,241 | 6,138 | 8,101 | 8,865 | 5,375 | 11,360 | 2,881 |
| 2010 | 14,422 | 6,202 | 8,220 | 8,995 | 5,427 | 11,499 | 2,923 |
| 2011 | 14,611 | 6,266 | 8,344 | 9,125 | 5,485 | 11,646 | 2,965 |
| 2012 | 14,805 | 6,327 | 8,478 | 9,253 | 5,552 | 11,797 | 3,008 |
| **High alternative projections** | | | | | | | |
| 2001 | 13,411 | 5,876 | 7,534 | 8,141 | 5,269 | 10,735 | 2,674 |
| 2002 | 13,553 | 5,917 | 7,635 | 8,275 | 5,277 | 10,841 | 2,712 |
| 2003 | 13,688 | 5,963 | 7,726 | 8,356 | 5,334 | 10,949 | 2,740 |
| 2004 | 13,887 | 6,031 | 7,857 | 8,490 | 5,398 | 11,106 | 2,782 |
| 2005 | 14,207 | 6,157 | 8,050 | 8,707 | 5,499 | 11,356 | 2,850 |
| 2006 | 14,494 | 6,271 | 8,224 | 8,917 | 5,577 | 11,580 | 2,914 |
| 2007 | 14,665 | 6,339 | 8,327 | 9,053 | 5,612 | 11,712 | 2,953 |
| 2008 | 14,891 | 6,428 | 8,464 | 9,234 | 5,658 | 11,885 | 3,006 |
| 2009 | 15,121 | 6,518 | 8,603 | 9,413 | 5,707 | 12,062 | 3,059 |
| 2010 | 15,314 | 6,586 | 8,728 | 9,551 | 5,763 | 12,211 | 3,103 |
| 2011 | 15,515 | 6,654 | 8,860 | 9,689 | 5,825 | 12,366 | 3,149 |
| 2012 | 15,721 | 6,719 | 9,002 | 9,825 | 5,896 | 12,527 | 3,194 |

NOTE: Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011.*) Detail may not sum to totals due to rounding.

Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model. (This table was prepared May 2002.)

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**Table 20.—Total graduate enrollment in all degree-granting institutions, by sex, attendance status, and control of institution, with alternative projections: Fall 1987 to fall 2012**

(In thousands)

| Year | Total | Sex | | Attendance status | | Control | |
|---|---|---|---|---|---|---|---|
| | | Men | Women | Full-time | Part-time | Public | Private |
| 1987 | 1,452 | 694 | 758 | 527 | 925 | 945 | 507 |
| 1988 | 1,472 | 697 | 775 | 553 | 919 | 949 | 522 |
| 1989 | 1,522 | 710 | 811 | 572 | 949 | 978 | 544 |
| 1990 | 1,586 | 737 | 849 | 599 | 987 | 1,023 | 563 |
| 1991 | 1,639 | 760 | 878 | 641 | 997 | 1,050 | 589 |
| 1992 | 1,669 | 772 | 896 | 665 | 1,003 | 1,058 | 611 |
| 1993 | 1,688 | 771 | 918 | 689 | 1,000 | 1,064 | 625 |
| 1994 | 1,721 | 776 | 945 | 706 | 1,015 | 1,075 | 647 |
| 1995 | 1,732 | 768 | 964 | 717 | 1,015 | 1,074 | 659 |
| 1996 | 1,742 | 759 | 983 | 737 | 1,005 | 1,069 | 674 |
| 1997 | 1,753 | 758 | 996 | 753 | 1,001 | 1,070 | 683 |
| 1998 | 1,768 | 754 | 1,013 | 753 | 1,014 | 1,067 | 701 |
| 1999 | 1,807 | 766 | 1,041 | 781 | 1,026 | 1,077 | 730 |
| 2000 | 1,850 | 779 | 1,071 | 813 | 1,037 | 1,089 | 761 |
| **Middle alternative projections** | | | | | | | |
| 2001 | 1,852 | 782 | 1,070 | 801 | 1,051 | 1,109 | 743 |
| 2002 | 1,865 | 782 | 1,082 | 801 | 1,063 | 1,117 | 748 |
| 2003 | 1,878 | 782 | 1,095 | 799 | 1,078 | 1,125 | 753 |
| 2004 | 1,897 | 786 | 1,112 | 805 | 1,093 | 1,137 | 760 |
| 2005 | 1,917 | 790 | 1,126 | 813 | 1,103 | 1,149 | 768 |
| 2006 | 1,930 | 793 | 1,136 | 819 | 1,110 | 1,157 | 773 |
| 2007 | 1,943 | 797 | 1,146 | 827 | 1,116 | 1,165 | 778 |
| 2008 | 1,956 | 801 | 1,154 | 835 | 1,120 | 1,172 | 784 |
| 2009 | 1,969 | 805 | 1,164 | 844 | 1,125 | 1,180 | 789 |
| 2010 | 1,986 | 811 | 1,176 | 853 | 1,134 | 1,190 | 796 |
| 2011 | 2,018 | 821 | 1,197 | 871 | 1,147 | 1,209 | 809 |
| 2012 | 2,063 | 836 | 1,226 | 898 | 1,164 | 1,236 | 827 |
| **Low alternative projections** | | | | | | | |
| 2001 | 1,833 | 774 | 1,059 | 793 | 1,040 | 1,098 | 736 |
| 2002 | 1,848 | 775 | 1,072 | 794 | 1,053 | 1,107 | 741 |
| 2003 | 1,861 | 775 | 1,085 | 792 | 1,068 | 1,115 | 746 |
| 2004 | 1,876 | 777 | 1,100 | 796 | 1,081 | 1,124 | 752 |
| 2005 | 1,875 | 773 | 1,101 | 795 | 1,079 | 1,124 | 751 |
| 2006 | 1,872 | 769 | 1,102 | 794 | 1,077 | 1,122 | 750 |
| 2007 | 1,885 | 773 | 1,112 | 802 | 1,083 | 1,130 | 755 |
| 2008 | 1,897 | 777 | 1,119 | 810 | 1,086 | 1,137 | 760 |
| 2009 | 1,910 | 781 | 1,129 | 819 | 1,091 | 1,145 | 765 |
| 2010 | 1,926 | 787 | 1,141 | 827 | 1,100 | 1,154 | 772 |
| 2011 | 1,957 | 796 | 1,161 | 845 | 1,113 | 1,173 | 785 |
| 2012 | 2,001 | 811 | 1,189 | 871 | 1,129 | 1,199 | 802 |
| **High alternative projections** | | | | | | | |
| 2001 | 1,871 | 790 | 1,081 | 809 | 1,062 | 1,120 | 750 |
| 2002 | 1,882 | 789 | 1,092 | 808 | 1,073 | 1,127 | 755 |
| 2003 | 1,895 | 789 | 1,105 | 806 | 1,088 | 1,135 | 760 |
| 2004 | 1,918 | 795 | 1,124 | 814 | 1,105 | 1,150 | 768 |
| 2005 | 1,959 | 807 | 1,151 | 831 | 1,127 | 1,174 | 785 |
| 2006 | 1,988 | 817 | 1,170 | 844 | 1,143 | 1,192 | 796 |
| 2007 | 2,001 | 821 | 1,180 | 852 | 1,149 | 1,200 | 801 |
| 2008 | 2,015 | 825 | 1,189 | 860 | 1,154 | 1,207 | 808 |
| 2009 | 2,028 | 829 | 1,199 | 869 | 1,159 | 1,215 | 813 |
| 2010 | 2,046 | 835 | 1,211 | 879 | 1,168 | 1,226 | 820 |
| 2011 | 2,079 | 846 | 1,233 | 897 | 1,181 | 1,245 | 833 |
| 2012 | 2,125 | 861 | 1,263 | 925 | 1,199 | 1,273 | 852 |

NOTE: Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011.*) Detail may not sum to totals due to rounding.

Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model. (This table was prepared May 2002.)

**Table 21.—Total first-professional enrollment in all degree-granting institutions, by sex, attendance status, and control of institution, with alternative projections: Fall 1987 to fall 2012**

(In thousands)

| Year | Total | Sex | | Attendance status | | Control | |
|---|---|---|---|---|---|---|---|
| | | Men | Women | Full-time | Part-time | Public | Private |
| 1987 | 268 | 170 | 98 | 242 | 26 | 110 | 158 |
| 1988 | 267 | 167 | 100 | 241 | 26 | 109 | 158 |
| 1989 | 274 | 169 | 105 | 248 | 26 | 113 | 162 |
| 1990 | 273 | 167 | 107 | 246 | 28 | 112 | 162 |
| 1991 | 281 | 170 | 111 | 252 | 29 | 111 | 169 |
| 1992 | 281 | 169 | 112 | 252 | 29 | 111 | 170 |
| 1993 | 292 | 173 | 120 | 260 | 33 | 114 | 179 |
| 1994 | 295 | 174 | 120 | 263 | 31 | 114 | 181 |
| 1995 | 298 | 174 | 123 | 266 | 31 | 115 | 183 |
| 1996 | 298 | 173 | 125 | 267 | 31 | 117 | 182 |
| 1997 | 298 | 169 | 129 | 267 | 31 | 118 | 180 |
| 1998 | 302 | 168 | 134 | 271 | 31 | 121 | 182 |
| 1999 | 303 | 166 | 138 | 271 | 33 | 123 | 180 |
| 2000 | 307 | 163 | 143 | 273 | 33 | 124 | 183 |
| **Middle alternative projections** | | | | | | | |
| 2001 | 312 | 172 | 140 | 279 | 33 | 125 | 187 |
| 2002 | 312 | 170 | 142 | 278 | 34 | 125 | 187 |
| 2003 | 312 | 169 | 143 | 278 | 34 | 125 | 187 |
| 2004 | 314 | 169 | 145 | 280 | 34 | 126 | 188 |
| 2005 | 317 | 170 | 147 | 283 | 34 | 127 | 190 |
| 2006 | 319 | 171 | 148 | 285 | 34 | 128 | 191 |
| 2007 | 322 | 172 | 149 | 287 | 34 | 129 | 193 |
| 2008 | 325 | 173 | 151 | 290 | 34 | 130 | 194 |
| 2009 | 328 | 174 | 153 | 292 | 35 | 132 | 196 |
| 2010 | 331 | 176 | 155 | 295 | 36 | 133 | 198 |
| 2011 | 337 | 179 | 159 | 302 | 36 | 136 | 202 |
| 2012 | 347 | 183 | 164 | 311 | 36 | 140 | 207 |
| **Low alternative projections** | | | | | | | |
| 2001 | 309 | 170 | 139 | 276 | 33 | 124 | 185 |
| 2002 | 309 | 168 | 141 | 275 | 34 | 124 | 185 |
| 2003 | 309 | 167 | 142 | 275 | 34 | 124 | 185 |
| 2004 | 311 | 167 | 143 | 277 | 34 | 125 | 186 |
| 2005 | 310 | 166 | 144 | 277 | 33 | 124 | 186 |
| 2006 | 309 | 166 | 144 | 276 | 33 | 124 | 185 |
| 2007 | 312 | 167 | 145 | 278 | 33 | 125 | 187 |
| 2008 | 315 | 168 | 146 | 281 | 33 | 126 | 188 |
| 2009 | 318 | 169 | 148 | 283 | 34 | 128 | 190 |
| 2010 | 321 | 171 | 150 | 286 | 35 | 129 | 192 |
| 2011 | 327 | 174 | 154 | 293 | 35 | 132 | 196 |
| 2012 | 337 | 178 | 159 | 302 | 35 | 136 | 201 |
| **High alternative projections** | | | | | | | |
| 2001 | 315 | 174 | 141 | 282 | 33 | 126 | 189 |
| 2002 | 315 | 172 | 143 | 281 | 34 | 126 | 189 |
| 2003 | 315 | 171 | 144 | 281 | 34 | 126 | 189 |
| 2004 | 317 | 171 | 147 | 283 | 34 | 127 | 190 |
| 2005 | 324 | 174 | 150 | 289 | 35 | 130 | 194 |
| 2006 | 329 | 176 | 152 | 294 | 35 | 132 | 197 |
| 2007 | 332 | 177 | 153 | 296 | 35 | 133 | 199 |
| 2008 | 335 | 178 | 156 | 299 | 35 | 134 | 200 |
| 2009 | 338 | 179 | 158 | 301 | 36 | 136 | 202 |
| 2010 | 341 | 181 | 160 | 304 | 37 | 137 | 204 |
| 2011 | 347 | 184 | 164 | 311 | 37 | 140 | 208 |
| 2012 | 357 | 188 | 169 | 320 | 37 | 144 | 213 |

NOTE: Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011.*) Detail may not sum to totals due to rounding.

Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model. (This table was prepared May 2002.)



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**Table 22.—Total full-time-equivalent enrollment in all degree-granting institutions, by control and type of institution with alternative projections: Fall 1987 to fall 2012**

(In thousands)

| Year | Total | Public | | Private | |
|---|---|---|---|---|---|
| | | 4-year | 2-year | 4-year | 2-year |
| 1987 | 9,229 | 4,396 | 2,542 | 2,091 | 201 |
| 1988 | 9,466 | 4,505 | 2,591 | 2,160 | 209 |
| 1989 | 9,783 | 4,620 | 2,752 | 2,195 | 216 |
| 1990 | 9,985 | 4,740 | 2,818 | 2,230 | 197 |
| 1991 | 10,363 | 4,796 | 3,067 | 2,287 | 212 |
| 1992 | 10,438 | 4,798 | 3,114 | 2,332 | 194 |
| 1993 | 10,353 | 4,765 | 3,046 | 2,356 | 184 |
| 1994 | 10,349 | 4,749 | 3,035 | 2,390 | 176 |
| 1995 | 10,337 | 4,757 | 2,994 | 2,418 | 168 |
| 1996 | 10,482 | 4,768 | 3,028 | 2,467 | 219 |
| 1997 | 10,615 | 4,813 | 3,056 | 2,525 | 220 |
| 1998 | 10,699 | 4,870 | 3,011 | 2,599 | 220 |
| 1999 | 10,944 | 4,944 | 3,075 | 2,694 | 229 |
| 2000 | 11,267 | 5,026 | 3,241 | 2,769 | 231 |
| | | **Middle alternative projections** | | | |
| 2001 | 11,402 | 5,148 | 3,251 | 2,770 | 234 |
| 2002 | 11,552 | 5,221 | 3,288 | 2,806 | 237 |
| 2003 | 11,654 | 5,268 | 3,318 | 2,829 | 239 |
| 2004 | 11,802 | 5,333 | 3,362 | 2,863 | 243 |
| 2005 | 11,956 | 5,406 | 3,402 | 2,901 | 246 |
| 2006 | 12,116 | 5,482 | 3,443 | 2,941 | 250 |
| 2007 | 12,273 | 5,555 | 3,486 | 2,979 | 254 |
| 2008 | 12,476 | 5,648 | 3,542 | 3,027 | 259 |
| 2009 | 12,682 | 5,745 | 3,596 | 3,077 | 264 |
| 2010 | 12,850 | 5,827 | 3,635 | 3,120 | 267 |
| 2011 | 13,035 | 5,919 | 3,676 | 3,170 | 270 |
| 2012 | 13,235 | 6,016 | 3,719 | 3,226 | 273 |
| | | **Low alternative projections** | | | |
| 2001 | 11,288 | 5,097 | 3,218 | 2,742 | 232 |
| 2002 | 11,448 | 5,174 | 3,258 | 2,781 | 235 |
| 2003 | 11,549 | 5,221 | 3,288 | 2,804 | 237 |
| 2004 | 11,672 | 5,274 | 3,325 | 2,832 | 240 |
| 2005 | 11,693 | 5,287 | 3,327 | 2,837 | 241 |
| 2006 | 11,753 | 5,318 | 3,340 | 2,853 | 243 |
| 2007 | 11,905 | 5,388 | 3,381 | 2,890 | 246 |
| 2008 | 12,102 | 5,479 | 3,436 | 2,936 | 251 |
| 2009 | 12,302 | 5,573 | 3,488 | 2,985 | 256 |
| 2010 | 12,465 | 5,652 | 3,526 | 3,026 | 259 |
| 2011 | 12,644 | 5,741 | 3,566 | 3,075 | 262 |
| 2012 | 12,838 | 5,836 | 3,607 | 3,129 | 265 |
| | | **High alternative projections** | | | |
| 2001 | 11,516 | 5,199 | 3,284 | 2,798 | 236 |
| 2002 | 11,656 | 5,268 | 3,318 | 2,831 | 239 |
| 2003 | 11,759 | 5,315 | 3,348 | 2,854 | 241 |
| 2004 | 11,932 | 5,392 | 3,399 | 2,894 | 246 |
| 2005 | 12,219 | 5,525 | 3,477 | 2,965 | 251 |
| 2006 | 12,479 | 5,646 | 3,546 | 3,029 | 258 |
| 2007 | 12,641 | 5,722 | 3,591 | 3,068 | 262 |
| 2008 | 12,850 | 5,817 | 3,648 | 3,118 | 267 |
| 2009 | 13,062 | 5,917 | 3,704 | 3,169 | 272 |
| 2010 | 13,236 | 6,002 | 3,744 | 3,214 | 275 |
| 2011 | 13,426 | 6,097 | 3,786 | 3,265 | 278 |
| 2012 | 13,632 | 6,196 | 3,831 | 3,323 | 281 |

NOTE: Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011.*) Detail may not sum to totals due to rounding.

Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model. (This table was prepared May 2002.)



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# Chapter 3

# High School Graduates

## National

The number of high school graduates is projected to increase 9 percent from 1999–2000 to 2011–12. Increases in the number of graduates are expected for both public and private schools. The significant rise in the number of graduates reflects the increase in the 18-year-old population over the projection period, rather than changes in the graduation rates of 12th-graders (table 23 and figure 34).

However, projections of graduates could be impacted by changes in policies affecting graduation requirements. Projections of public high school graduates that have been produced over the past 19 years are less accurate than projections of public elementary and secondary enrollment, but more accurate than projections of earned degrees by level. For more information, see table A2, page 79.

### Total High School Graduates

A high school graduate is defined as an individual who has received formal recognition from school authorities, by the granting of a diploma, for completing a prescribed course of studies at the secondary school level. This definition does not include other high school completers, high school equivalency recipients, or other diploma recipients.

The number of high school graduates from public and private schools increased from 2.6 million in 1986–87 to 2.8 million in 1987–88 (table 23 and figure 35). Then it decreased to 2.5 million in 1993–94, before increasing to 2.8 million in 1999–2000. The total number of high school graduates is projected to rise to 3.1 million by 2011–12, an increase of 9 percent from 1999–2000.

### High School Graduates, by Control of Institution

The number of graduates of public high schools increased from 2.4 million in 1986–87 to 2.5 million in 1987–88 (table 23 and figure 36). Then it decreased to 2.2 million in 1993–94, before rising to 2.5 million in 1999–2000. Over the projection period, public high school graduates are projected to increase to 2.8 million by 2011–12, an increase of 9 percent from 1999–2000.

The number of graduates of private high schools is projected to increase from an estimated 277,000 in 1999–2000 to 294,000 by 2011–12, an increase of 6 percent.

## State Level

The expected 9 percent national increase in public high school graduates plays out differently in each state, with 26 states showing increases ranging from 0.3 percent to 71 percent, and 25 states showing decreases ranging from 0.3 percent to 41 percent (table 25 and figure 38). Projected trends in the number of public high school graduates by state could be impacted by changes in policies affecting graduation requirements.

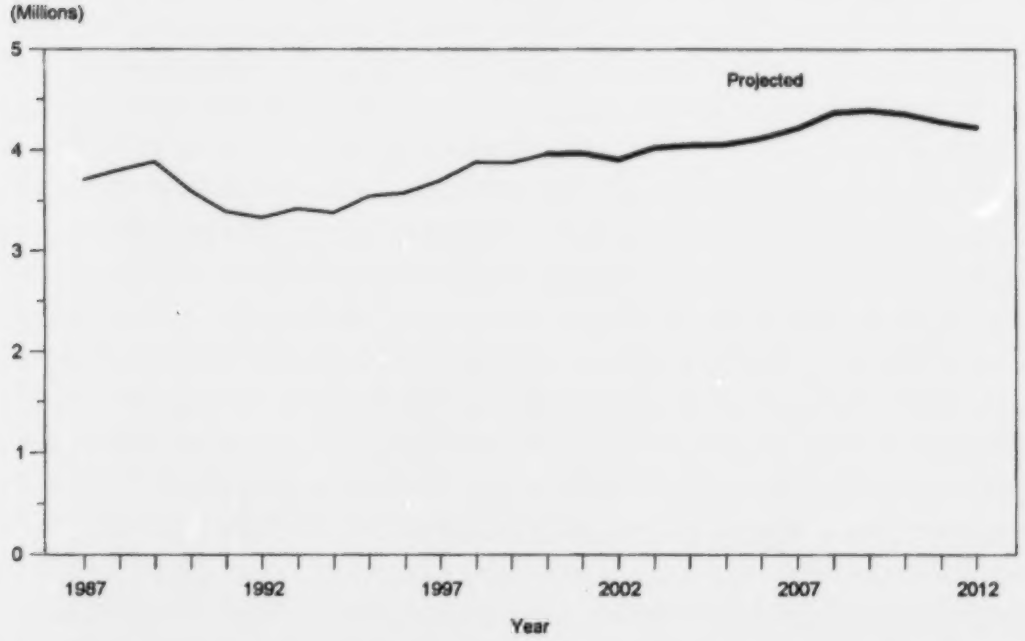
The number of public high school graduates in the Northeast is expected to increase 8 percent between 1999–2000 and 2011–12 (table 25 and figure 39). The largest increases are expected in Connecticut (16 percent) and New Jersey (26 percent). Decreases are projected for Maine (12 percent) and Vermont (16 percent).

The number of public high school graduates in the Midwest is expected to increase by 1 percent between 1999–2000 and 2011–12. The largest increase is expected in Illinois (17 percent). Large decreases are projected for North Dakota (29 percent) and South Dakota (26 percent).

Between 1999–2000 and 2011–12, the number of public high school graduates in the South is projected to increase by 11 percent. The largest increases are expected in Florida (27 percent), North Carolina (22 percent), and Virginia (24 percent). The largest decrease is projected for the District of Columbia (41 percent).

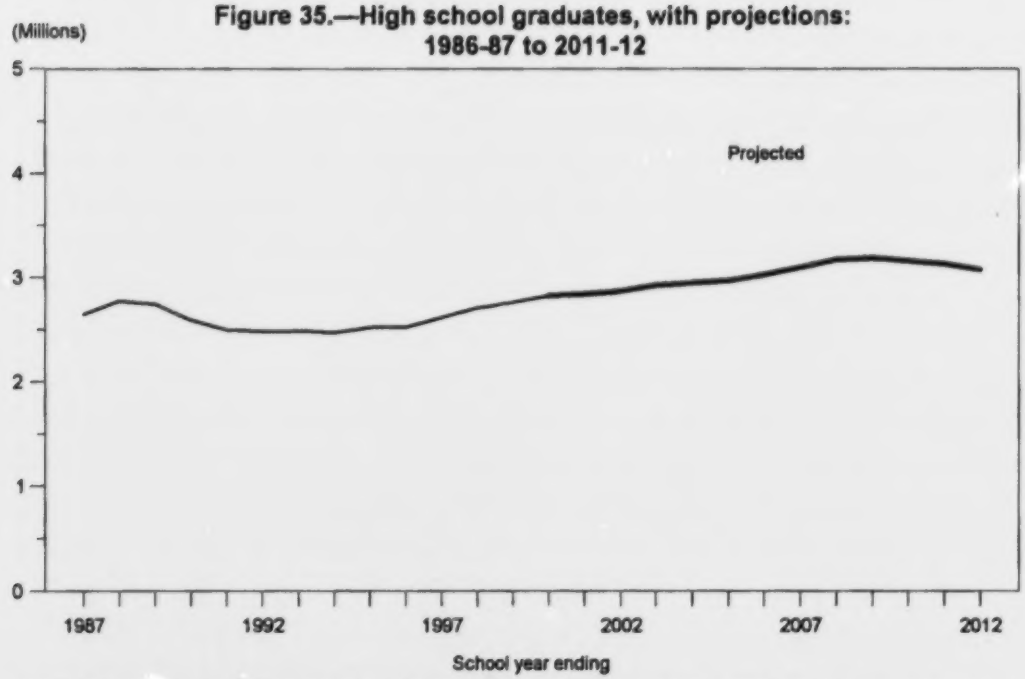
The number of high school graduates in the West is expected to increase, rising by 17 percent. The largest increases are expected in Arizona (38 percent) and Nevada (71 percent). The largest decreases are projected for Montana (19 percent) and Wyoming (28 percent).

## Figure 34.—Eighteen-year-old population, with projections: 1987 to 2012



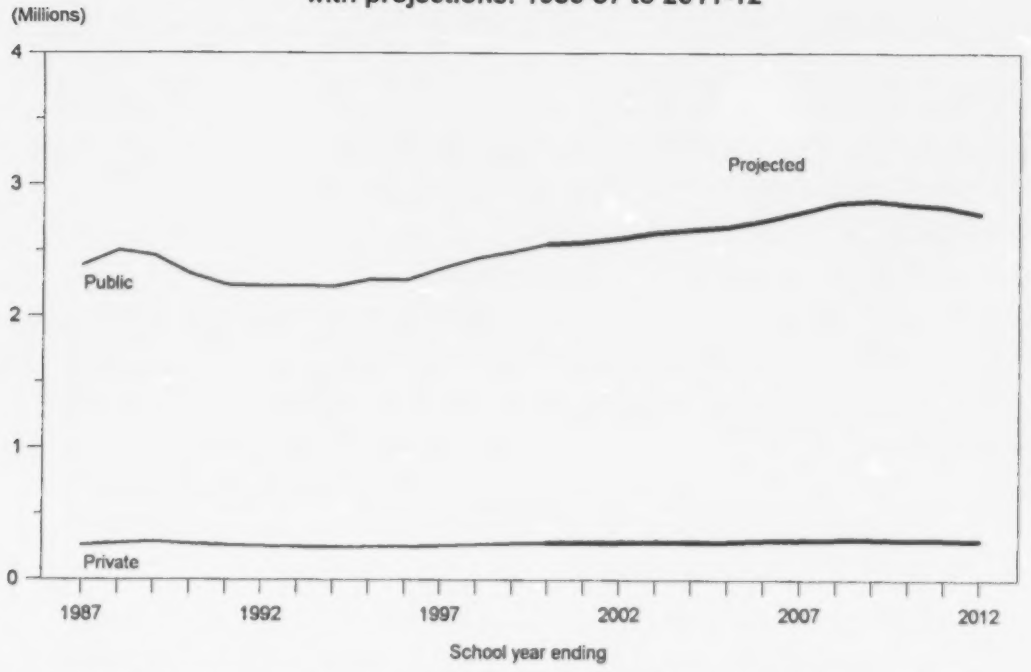

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-25, Nos. 1092, 1095, and "National Population Estimates," December 2001, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000.

## Figure 35.—High school graduates, with projections: 1986-87 to 2011-12



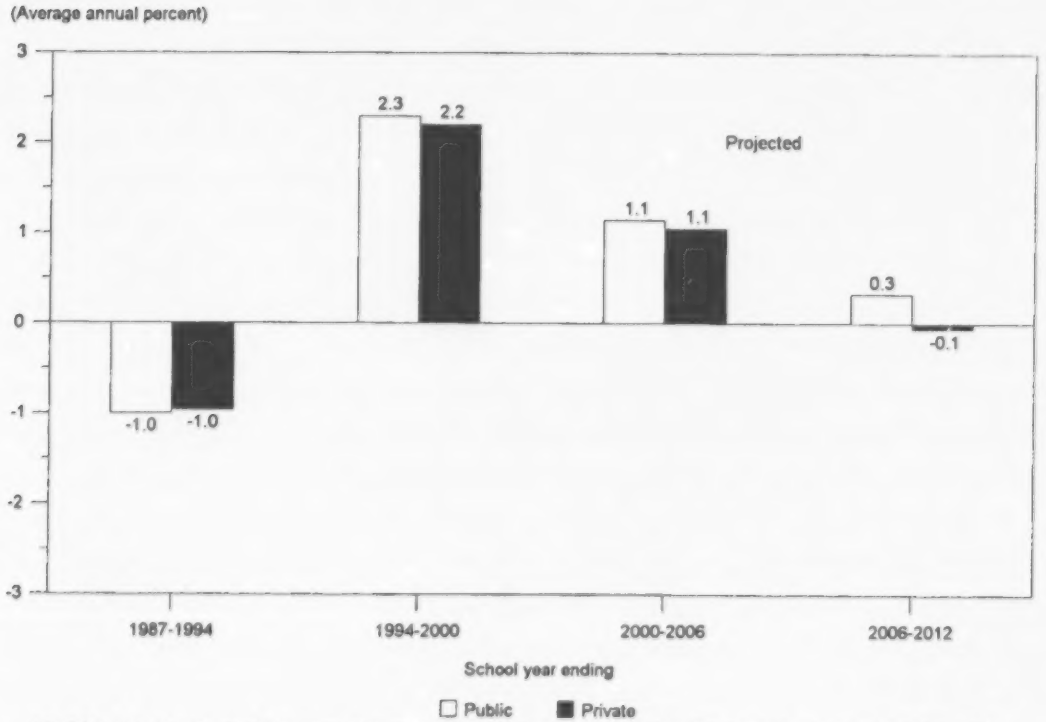

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; Common Core of Data surveys; *Private School Universe Survey, 1995-96*; *Public and Private Elementary and Secondary Education Statistics, Early Estimates*; and National Elementary and Secondary High School Graduates Model.

## Figure 36.—High school graduates, by control of institution, with projections: 1986-87 to 2011-12



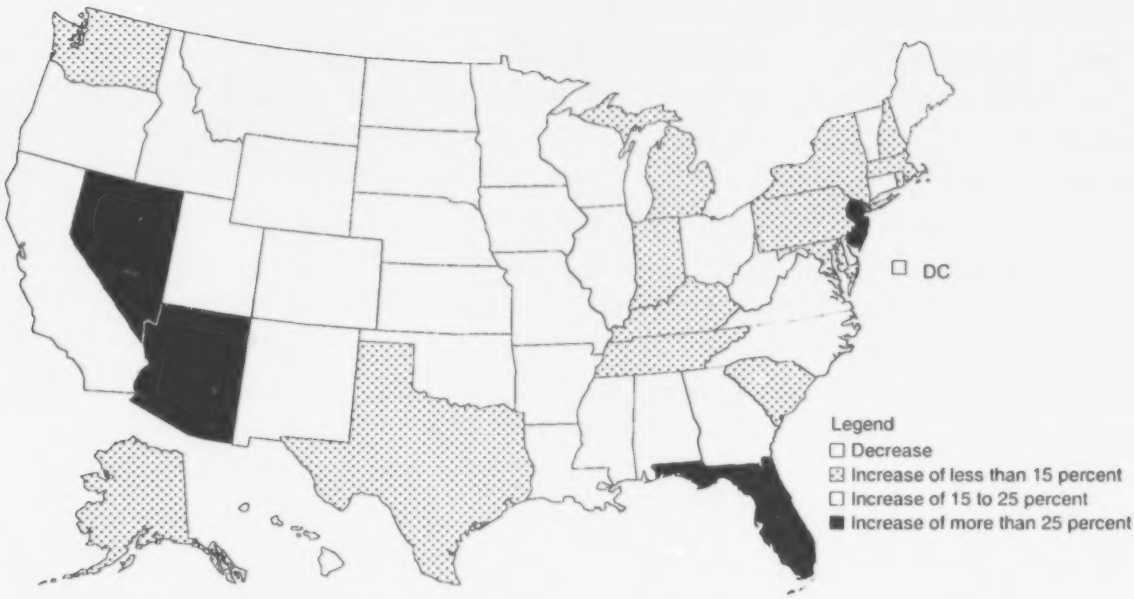

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; Common Core of Data surveys; *Private School Universe Survey, 1995-96*; *Public and Private Elementary and Secondary Education Statistics, Early Estimates*; and National Elementary and Secondary High School Graduates Model.

## Figure 37.—Average annual rates of change for high school graduates: 1986-87 to 2011-12



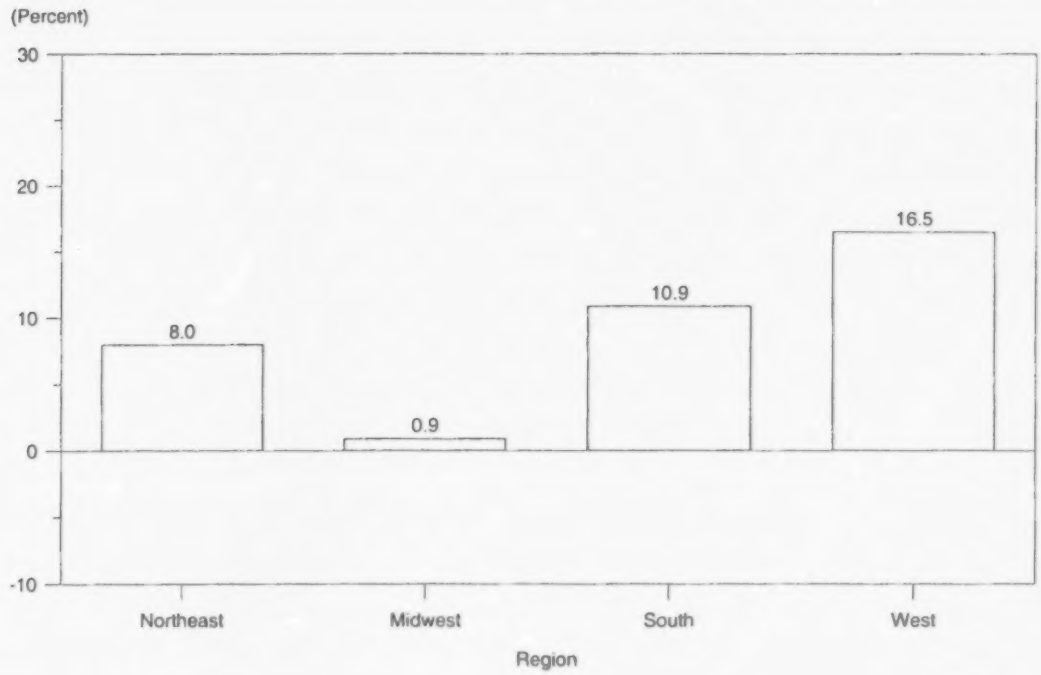

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; Common Core of Data surveys; *Private School Universe Survey, 1995-96*; *Public and Private Elementary and Secondary Education Statistics, Early Estimates*; and National Elementary and Secondary High School Graduates Model.

**Figure 38.—Percent change in number of public high school graduates, by state: 1999-2000 to 2011-12**




SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys; and State Public High School Graduates Model.

**Figure 39.—Percent change in number of public high school graduates, by region: 1999-2000 to 2011-12**




SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys; and State Public High School Graduates Model.



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**Table 23.—High school graduates, by control of institution, with projections: 1986–87 to 2011–12**

(In thousands)

| School year | Total | Public | Private |
|---|---|---|---|
| 1987 [1] | 2,643 | 2,383 | 260 |
| 1988 [1] | 2,773 | 2,500 | 273 |
| 1989 [2] | 2,744 | 2,459 | 285 |
| 1990 [3] | 2,589 | 2,320 | 269 |
| 1991 [2] | 2,493 | 2,235 | 258 |
| 1992 [3] | 2,478 | 2,226 | 252 |
| 1993 [2] | 2,481 | 2,233 | 247 |
| 1994 [3] | 2,464 | 2,221 | 243 |
| 1995 [2] | 2,519 | 2,274 | 246 |
| 1996 [3] | 2,518 | 2,273 | 245 |
| 1997 [2] | 2,612 | 2,358 | 254 |
| 1998 [3] | 2,704 | 2,439 | 265 |
| 1999 [2] | 2,762 | 2,489 | 273 |
| 2000 [3] | 2,824 | 2,546 | 277 |
| | Projected | | |
| 2001 | 2,839 | 2,561 | 279 |
| 2002 | 2,869 | 2,589 | 280 |
| 2003 | 2,920 | 2,636 | 285 |
| 2004 | 2,942 | 2,657 | 285 |
| 2005 | 2,965 | 2,677 | 288 |
| 2006 | 3,021 | 2,726 | 295 |
| 2007 | 3,092 | 2,791 | 300 |
| 2008 | 3,168 | 2,862 | 306 |
| 2009 | 3,181 | 2,877 | 304 |
| 2010 | 3,153 | 2,852 | 301 |
| 2011 | 3,127 | 2,829 | 298 |
| 2012 | 3,074 | 2,780 | 294 |

[1] Private school numbers are interpolated based on data from the 1985 Private School Survey.

[2] Private school numbers are from the Private School Universe Survey.

[3] Private school numbers are interpolated based on data from the Private School Universe Survey.

NOTE: Some data have been revised from previously published figures. Prior to 1989–90, numbers for private high school graduates were estimated by NCES. Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools;* Common Core of Data surveys; 1985 Private School Survey; Private School Universe Survey, 1995–96; *Public and Private Elementary and Secondary Education Statistics, Early Estimates;* and National High School Graduates Model. (This table was prepared May 2002.)

**Table 24.—High school graduates in public schools, by region and state, with projections: 1993–94 to 2011–12**

| Region and state | Actual | | | | | | | Projected | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1993–94 | 1994–95 | 1995–96 | 1996–97 | 1997–98 | 1998–99 | 1999–2000 | 2000–01 | 2001–02 | 2002–03 |
| United States | 2,220,849 | 2,273,541 | 2,273,109 | 2,358,403 | 2,439,050 | 2,488,605 | 2,546,102 | 2,560,110 | 2,588,620 | 2,635,630 |
| Northeast | 408,755 | 413,417 | 417,843 | 432,280 | 430,450 | 437,156 | 453,754 | 459,270 | 464,950 | 480,100 |
| Connecticut | 26,330 | 26,445 | 26,319 | 27,029 | 27,885 | 28,284 | 31,562 | 31,260 | 32,960 | 33,730 |
| Maine | 11,384 | 11,501 | 11,795 | 12,019 | 12,171 | 11,988 | 12,148 | 12,410 | 12,590 | 12,780 |
| Massachusetts | 47,453 | 47,679 | 47,993 | 49,008 | 50,452 | 51,465 | 52,950 | 54,400 | 55,940 | 57,960 |
| New Hampshire | 9,933 | 10,145 | 10,094 | 10,487 | 10,843 | 11,251 | 11,829 | 12,110 | 12,250 | 12,900 |
| New Jersey | 66,125 | 67,403 | 67,704 | 70,028 | 65,106 | 67,410 | 74,423 | 75,940 | 79,510 | 83,970 |
| New York | 132,708 | 132,401 | 134,401 | 140,861 | 138,531 | 139,426 | 141,731 | 142,330 | 140,880 | 145,330 |
| Pennsylvania | 101,958 | 104,146 | 105,981 | 108,817 | 110,919 | 112,632 | 113,959 | 115,420 | 115,030 | 117,870 |
| Rhode Island | 7,450 | 7,826 | 7,689 | 7,850 | 8,074 | 8,179 | 8,477 | 8,560 | 8,860 | 8,850 |
| Vermont | 5,414 | 5,871 | 5,867 | 6,181 | 6,469 | 6,521 | 6,675 | 6,840 | 6,930 | 6,710 |
| Midwest | 578,914 | 596,753 | 592,775 | 614,217 | 640,857 | 645,322 | 640,338 | 643,930 | 644,820 | 660,200 |
| Illinois | 102,126 | 105,164 | 104,626 | 110,170 | 114,611 | 112,556 | 111,835 | 111,610 | 116,110 | 119,520 |
| Indiana | 54,650 | 56,058 | 56,330 | 57,463 | 58,899 | 58,964 | 57,023 | 57,130 | 56,430 | 56,450 |
| Iowa | 30,247 | 31,268 | 31,689 | 32,986 | 34,189 | 34,378 | 33,926 | 33,970 | 33,680 | 34,280 |
| Kansas | 25,319 | 26,125 | 25,786 | 26,648 | 27,856 | 28,685 | 29,102 | 29,850 | 29,630 | 29,850 |
| Michigan | 83,385 | 84,628 | 85,530 | 89,695 | 92,732 | 94,125 | 89,986 | 91,390 | 92,370 | 95,580 |
| Minnesota | 47,514 | 49,354 | 50,481 | 48,193 | 54,628 | 56,964 | 57,372 | 58,500 | 58,230 | 60,020 |
| Missouri | 46,566 | 48,862 | 49,011 | 50,543 | 52,095 | 52,531 | 52,848 | 54,370 | 53,900 | 54,960 |
| Nebraska | 17,072 | 17,969 | 18,014 | 18,636 | 19,719 | 20,550 | 20,149 | 19,880 | 20,130 | 20,260 |
| North Dakota | 7,522 | 7,817 | 8,027 | 8,025 | 8,170 | 8,388 | 8,606 | 8,400 | 8,080 | 8,110 |
| Ohio | 107,700 | 109,418 | 102,098 | 107,422 | 111,211 | 111,112 | 111,668 | 110,530 | 108,420 | 111,540 |
| South Dakota | 8,442 | 8,355 | 8,532 | 9,247 | 9,140 | 8,757 | 9,278 | 8,810 | 8,830 | 8,570 |
| Wisconsin | 48,371 | 51,735 | 52,651 | 55,189 | 57,607 | 58,312 | 58,545 | 59,490 | 59,010 | 61,060 |
| South | 748,079 | 770,737 | 766,273 | 789,143 | 821,372 | 835,286 | 861,498 | 856,550 | 872,040 | 881,390 |
| Alabama | 34,447 | 36,268 | 35,043 | 35,611 | 38,089 | 36,244 | 37,819 | 36,660 | 36,860 | 36,520 |
| Arkansas | 24,990 | 24,636 | 25,094 | 25,146 | 26,855 | 26,896 | 27,335 | 26,760 | 26,700 | 26,620 |
| Delaware | 5,230 | 5,234 | 5,609 | 5,953 | 6,439 | 6,484 | 6,108 | 6,680 | 6,420 | 6,550 |
| District of Columbia | 3,207 | 2,974 | 2,696 | 2,853 | 2,777 | 2,675 | 2,695 | 2,670 | 2,470 | 2,240 |
| Florida | 88,032 | 89,827 | 89,242 | 95,082 | 98,498 | 102,386 | 106,708 | 109,020 | 113,560 | 108,720 |
| Georgia | 56,356 | 56,660 | 56,271 | 58,996 | 58,525 | 59,227 | 62,563 | 62,250 | 65,210 | 65,930 |
| Kentucky | 38,454 | 37,626 | 36,641 | 36,941 | 37,270 | 37,048 | 36,830 | 37,620 | 38,070 | 37,920 |
| Louisiana | 34,822 | 36,480 | 36,467 | 36,495 | 38,030 | 37,802 | 38,430 | 37,840 | 37,580 | 37,120 |
| Maryland | 39,091 | 41,387 | 41,785 | 42,856 | 44,555 | 46,214 | 47,849 | 48,410 | 49,710 | 51,120 |
| Mississippi | 23,379 | 23,837 | 23,032 | 23,388 | 24,502 | 24,198 | 24,232 | 23,970 | 23,600 | 23,250 |
| North Carolina | 57,738 | 59,540 | 57,014 | 57,886 | 59,292 | 60,081 | 62,140 | 63,330 | 64,610 | 66,110 |
| Oklahoma | 31,872 | 33,319 | 33,060 | 33,536 | 35,213 | 36,556 | 37,646 | 36,940 | 36,250 | 35,900 |
| South Carolina | 30,603 | 30,680 | 30,182 | 30,829 | 31,373 | 31,495 | 31,617 | 29,360 | 30,510 | 31,240 |
| Tennessee | 40,643 | 43,556 | 43,792 | 41,617 | 39,866 | 40,823 | 41,568 | 39,750 | 39,710 | 40,230 |
| Texas | 163,191 | 170,322 | 171,844 | 181,794 | 197,186 | 203,393 | 212,925 | 210,690 | 215,700 | 222,690 |
| Virginia | 56,140 | 58,260 | 58,166 | 60,587 | 62,738 | 63,875 | 65,596 | 66,310 | 67,940 | 72,050 |
| West Virginia | 19,884 | 20,131 | 20,335 | 19,573 | 20,164 | 19,889 | 19,437 | 18,290 | 17,140 | 17,180 |
| West | 485,101 | 492,634 | 496,218 | 522,763 | 546,371 | 567,866 | 590,512 | 600,360 | 606,810 | 613,940 |
| Alaska | 5,747 | 5,765 | 5,945 | 6,133 | 6,462 | 6,810 | 6,615 | 6,750 | 6,940 | 7,000 |
| Arizona | 31,799 | 30,989 | 30,008 | 34,082 | 36,361 | 35,728 | 38,304 | 39,550 | 40,020 | 42,000 |
| California | 253,083 | 255,200 | 259,071 | 269,071 | 282,897 | 299,221 | 309,866 | 320,100 | 323,720 | 330,790 |
| Colorado | 31,867 | 32,409 | 32,608 | 34,231 | 35,794 | 36,958 | 38,924 | 40,090 | 40,780 | 41,620 |
| Hawaii | 9,369 | 9,407 | 9,387 | 8,929 | 9,670 | 9,714 | 10,437 | 9,780 | 9,980 | 9,610 |
| Idaho | 13,281 | 14,198 | 14,667 | 15,407 | 15,523 | 15,716 | 16,170 | 15,740 | 15,750 | 15,480 |
| Montana | 9,601 | 10,134 | 10,139 | 10,322 | 10,656 | 10,925 | 10,903 | 10,700 | 10,710 | 10,750 |
| Nevada | 9,485 | 10,038 | 10,374 | 12,425 | 13,052 | 13,892 | 14,551 | 14,910 | 15,600 | 13,740 |
| New Mexico | 14,892 | 14,928 | 15,402 | 15,700 | 16,529 | 17,317 | 18,031 | 17,790 | 17,590 | 17,380 |
| Oregon | 26,338 | 26,713 | 26,570 | 27,720 | 27,754 | 28,245 | 30,151 | 30,030 | 30,280 | 30,610 |
| Utah | 26,407 | 27,670 | 26,293 | 30,753 | 31,567 | 31,574 | 32,501 | 31,160 | 30,540 | 30,160 |
| Washington | 47,235 | 49,294 | 49,862 | 51,609 | 53,679 | 55,418 | 57,597 | 57,520 | 58,630 | 58,820 |
| Wyoming | 5,997 | 5,889 | 5,892 | 6,381 | 6,427 | 6,348 | 6,462 | 6,240 | 6,270 | 5,980 |

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**Table 24.—High school graduates in public schools, by region and state, with projections: 1993–94 to 2011–12—Continued**

| Region and state | Projected | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2003–04 | 2004–05 | 2005–06 | 2006–07 | 2007–08 | 2008–09 | 2009–10 | 2010–11 | 2011–12 |
| United States | 2,657,370 | 2,677,350 | 2,726,120 | 2,791,210 | 2,862,430 | 2,877,190 | 2,852,240 | 2,829,460 | 2,779,740 |
| Northeast | 483,780 | 492,800 | 506,300 | 518,510 | 527,190 | 524,130 | 516,390 | 508,250 | 490,070 |
| Connecticut | 34,590 | 35,600 | 36,510 | 37,310 | 38,100 | 37,570 | 37,570 | 37,250 | 36,670 |
| Maine | 12,900 | 12,520 | 12,650 | 12,570 | 12,440 | 12,120 | 11,920 | 11,390 | 10,750 |
| Massachusetts | 58,580 | 60,140 | 61,570 | 64,020 | 65,030 | 64,090 | 63,300 | 62,170 | 56,690 |
| New Hampshire | 12,990 | 13,250 | 13,260 | 13,550 | 13,800 | 13,440 | 13,430 | 12,910 | 12,500 |
| New Jersey | 86,360 | 87,760 | 91,710 | 95,800 | 96,890 | 97,270 | 96,560 | 96,260 | 93,910 |
| New York | 142,200 | 145,890 | 150,700 | 153,110 | 156,200 | 155,460 | 152,610 | 149,880 | 146,370 |
| Pennsylvania | 120,470 | 121,930 | 124,060 | 125,870 | 128,460 | 128,170 | 125,410 | 123,320 | 118,320 |
| Rhode Island | 9,010 | 9,130 | 9,370 | 9,700 | 9,800 | 9,740 | 9,570 | 9,290 | 9,280 |
| Vermont | 6,680 | 6,580 | 6,470 | 6,580 | 6,470 | 6,270 | 6,020 | 5,780 | 5,580 |
| Midwest | 654,550 | 649,230 | 654,670 | 667,290 | 684,610 | 682,800 | 672,340 | 663,600 | 646,320 |
| Illinois | 120,030 | 120,110 | 122,820 | 125,630 | 131,470 | 133,290 | 130,430 | 131,750 | 130,660 |
| Indiana | 55,360 | 55,220 | 57,290 | 59,290 | 60,320 | 60,950 | 60,160 | 59,680 | 58,220 |
| Iowa | 33,770 | 32,430 | 32,800 | 33,450 | 34,260 | 34,000 | 33,600 | 32,910 | 31,790 |
| Kansas | 29,470 | 28,910 | 28,820 | 28,770 | 29,310 | 28,850 | 28,630 | 27,980 | 27,530 |
| Michigan | 93,940 | 94,680 | 94,580 | 97,440 | 102,040 | 100,140 | 97,690 | 96,150 | 93,580 |
| Minnesota | 59,480 | 58,290 | 59,170 | 59,420 | 60,440 | 58,870 | 58,290 | 57,320 | 55,830 |
| Missouri | 54,570 | 53,990 | 54,350 | 55,350 | 56,330 | 57,080 | 57,620 | 55,010 | 52,610 |
| Nebraska | 19,850 | 19,290 | 19,140 | 19,270 | 19,850 | 19,300 | 18,960 | 18,620 | 18,240 |
| North Dakota | 7,820 | 7,430 | 7,380 | 7,140 | 6,970 | 6,830 | 6,580 | 6,400 | 6,100 |
| Ohio | 111,150 | 110,070 | 110,950 | 113,080 | 114,880 | 115,450 | 113,430 | 112,290 | 108,220 |
| South Dakota | 8,390 | 8,130 | 7,860 | 7,870 | 7,790 | 7,520 | 7,460 | 7,230 | 6,870 |
| Wisconsin | 60,720 | 60,680 | 59,510 | 60,580 | 60,950 | 60,520 | 59,490 | 58,260 | 56,670 |
| South | 893,950 | 903,970 | 915,400 | 940,440 | 955,590 | 974,490 | 972,210 | 966,490 | 955,380 |
| Alabama | 35,590 | 36,090 | 36,080 | 36,840 | 37,890 | 37,720 | 37,140 | 36,950 | 35,500 |
| Arkansas | 26,300 | 25,770 | 26,010 | 26,840 | 27,470 | 27,450 | 27,050 | 26,070 | 25,780 |
| Delaware | 6,780 | 6,750 | 6,960 | 6,830 | 6,850 | 7,030 | 7,180 | 7,270 | 7,100 |
| District of Columbia | 2,120 | 1,800 | 1,740 | 2,070 | 2,050 | 2,050 | 1,850 | 1,780 | 1,600 |
| Florida | 124,300 | 121,660 | 126,430 | 130,430 | 132,360 | 135,090 | 135,170 | 134,490 | 135,580 |
| Georgia | 66,550 | 68,170 | 69,980 | 72,780 | 75,630 | 75,680 | 75,730 | 76,110 | 74,990 |
| Kentucky | 39,010 | 37,980 | 38,300 | 38,390 | 39,540 | 40,540 | 40,670 | 41,750 | 42,200 |
| Louisiana | 31,140 | 38,460 | 35,350 | 35,360 | 31,410 | 37,320 | 35,200 | 34,520 | 33,320 |
| Maryland | 52,090 | 53,320 | 54,360 | 55,580 | 56,130 | 57,090 | 55,150 | 54,380 | 53,000 |
| Mississippi | 22,920 | 22,550 | 22,590 | 23,240 | 24,040 | 24,110 | 23,980 | 23,720 | 22,780 |
| North Carolina | 66,970 | 68,930 | 71,400 | 74,600 | 76,030 | 76,580 | 77,040 | 76,110 | 75,970 |
| Oklahoma | 35,780 | 35,070 | 34,730 | 35,050 | 35,400 | 35,410 | 35,300 | 34,140 | 32,800 |
| South Carolina | 31,540 | 32,330 | 32,820 | 34,090 | 31,930 | 34,670 | 34,590 | 34,140 | 32,840 |
| Tennessee | 40,060 | 40,570 | 40,950 | 42,980 | 44,440 | 44,930 | 44,290 | 43,110 | 41,710 |
| Texas | 221,590 | 224,030 | 226,370 | 229,580 | 235,360 | 239,160 | 242,650 | 244,310 | 243,560 |
| Virginia | 73,980 | 73,760 | 74,920 | 78,970 | 82,170 | 82,690 | 82,640 | 81,630 | 81,030 |
| West Virginia | 17,230 | 16,730 | 16,410 | 16,810 | 16,890 | 16,970 | 16,580 | 16,010 | 15,620 |
| West | 625,090 | 631,350 | 649,750 | 664,970 | 695,040 | 695,770 | 691,300 | 691,120 | 687,970 |
| Alaska | 7,160 | 7,090 | 7,230 | 7,310 | 7,430 | 7,330 | 7,370 | 6,780 | 6,700 |
| Arizona | 42,720 | 43,190 | 45,000 | 46,790 | 49,550 | 50,460 | 51,440 | 51,280 | 52,910 |
| California | 333,960 | 343,080 | 356,120 | 364,900 | 384,850 | 384,660 | 378,840 | 384,380 | 382,500 |
| Colorado | 43,280 | 43,210 | 43,990 | 44,860 | 46,430 | 47,040 | 47,730 | 47,390 | 47,140 |
| Hawaii | 9,840 | 9,860 | 9,890 | 10,000 | 10,420 | 10,140 | 9,750 | 9,490 | 9,410 |
| Idaho | 15,080 | 15,370 | 15,820 | 15,820 | 16,390 | 16,220 | 16,260 | 16,120 | 15,810 |
| Montana | 10,550 | 10,260 | 10,110 | 9,960 | 10,080 | 9,770 | 9,720 | 9,170 | 8,810 |
| Nevada | 18,960 | 18,070 | 19,320 | 20,570 | 22,260 | 23,020 | 23,800 | 24,080 | 24,900 |
| New Mexico | 17,270 | 17,000 | 16,830 | 17,030 | 17,250 | 17,250 | 16,900 | 16,480 | 15,730 |
| Oregon | 30,530 | 30,200 | 30,550 | 31,490 | 31,860 | 31,920 | 31,360 | 30,340 | 30,050 |
| Utah | 29,680 | 29,180 | 30,010 | 29,850 | 30,570 | 30,640 | 30,970 | 30,170 | 30,590 |
| Washington | 60,240 | 59,310 | 59,450 | 61,130 | 62,600 | 62,120 | 62,140 | 60,590 | 58,780 |
| Wyoming | 5,820 | 5,530 | 5,430 | 5,260 | 5,350 | 5,200 | 5,020 | 4,850 | 4,640 |

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys and State Public High School Graduates Model. (This table was prepared May 2002.)



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**Table 25.—Percent change in number of public high school graduates, by region and state, with projections: 1993–94 to 2011–12**

| Region and state | Actual | Projected | | |
|---|---|---|---|---|
| | 1993–94 to 1999–2000 | 1999–2000 to 2006–07 | 2006–07 to 2011–12 | 1999–2000 to 2011–12 |
| United States | 14.6 | 7.1 | 2.0 | 9.2 |
| Northeast | 11.0 | 11.6 | -3.2 | 8.0 |
| Connecticut | 19.9 | 15.7 | 0.5 | 16.2 |
| Maine | 6.7 | 4.1 | -15.0 | -11.5 |
| Massachusetts | 11.6 | 16.3 | -7.9 | 7.1 |
| New Hampshire | 19.1 | 12.1 | -5.7 | 5.7 |
| New Jersey | 12.5 | 23.2 | 2.4 | 26.2 |
| New York | 6.8 | 6.3 | -2.9 | 3.3 |
| Pennsylvania | 11.8 | 8.9 | -4.6 | 3.8 |
| Rhode Island | 13.8 | 10.5 | -1.0 | 9.5 |
| Vermont | 23.3 | -3.1 | -13.8 | -16.4 |
| Midwest | 10.6 | 2.2 | -1.3 | 0.9 |
| Illinois | 9.5 | 9.8 | 6.4 | 16.8 |
| Indiana | 4.3 | 0.5 | 1.6 | 2.1 |
| Iowa | 12.2 | -3.3 | -3.1 | -6.3 |
| Kansas | 14.9 | -1.0 | -4.4 | -5.4 |
| Michigan | 7.9 | 5.1 | -1.1 | 4.0 |
| Minnesota | 20.7 | 3.1 | -5.6 | -2.7 |
| Missouri | 13.5 | 2.8 | -3.2 | -0.4 |
| Nebraska | 18.0 | -5.0 | -4.7 | -9.5 |
| North Dakota | 14.4 | -14.3 | -17.4 | -29.2 |
| Ohio | 3.7 | -0.6 | -2.5 | -3.1 |
| South Dakota | 9.9 | -15.3 | -12.6 | -26.0 |
| Wisconsin | 21.0 | 1.6 | -4.8 | -3.2 |
| South | 15.2 | 6.3 | 4.4 | 10.9 |
| Alabama | 9.8 | -4.6 | -1.6 | -6.1 |
| Arkansas | 9.4 | -4.8 | -0.9 | -5.7 |
| Delaware | 16.8 | 14.0 | 1.9 | 16.2 |
| District of Columbia | -16.0 | -35.5 | -8.0 | -40.7 |
| Florida | 21.2 | 18.5 | 7.2 | 27.1 |
| Georgia | 11.0 | 11.9 | 7.2 | 19.9 |
| Kentucky | -4.2 | 4.0 | 10.2 | 14.6 |
| Louisiana | 10.4 | -8.0 | -5.7 | -13.3 |
| Maryland | 22.4 | 13.6 | -2.5 | 10.8 |
| Mississippi | 3.6 | -6.8 | 0.9 | -6.0 |
| North Carolina | 7.6 | 14.9 | 6.4 | 22.3 |
| Oklahoma | 18.1 | -7.7 | -5.6 | -12.9 |
| South Carolina | 3.3 | 3.8 | 0.1 | 3.9 |
| Tennessee | 2.3 | -1.5 | 1.8 | 0.3 |
| Texas | 30.5 | 6.3 | 7.6 | 14.4 |
| Virginia | 16.8 | 14.2 | 8.2 | 23.5 |
| West Virginia | -2.2 | -15.6 | -4.8 | -19.6 |
| West | 21.7 | 10.0 | 5.9 | 16.5 |
| Alaska | 15.1 | 9.4 | -7.3 | 1.3 |
| Arizona | 20.5 | 17.5 | 17.6 | 38.1 |
| California | 22.4 | 14.9 | 7.4 | 23.4 |
| Colorado | 22.1 | 13.0 | 7.2 | 21.1 |
| Hawaii | 11.4 | -5.2 | -4.9 | -9.9 |
| Idaho | 21.8 | -2.2 | -0.1 | -2.2 |
| Montana | 13.6 | -7.3 | -12.9 | -19.2 |
| Nevada | 53.4 | 32.7 | 28.9 | 71.1 |
| New Mexico | 21.1 | -6.7 | -6.5 | -12.7 |
| Oregon | 14.5 | 1.3 | -1.6 | -0.3 |
| Utah | 23.1 | -7.7 | 1.9 | -5.9 |
| Washington | 21.9 | 3.2 | -1.1 | 2.1 |
| Wyoming | 7.8 | -15.9 | -14.7 | -28.3 |

NOTE: Calculations are based on unrounded numbers. Mean absolute percentage errors of selected education statistics can be found in table A2.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys and State Public High School Graduates Model. (This table was prepared May 2002.)

# Chapter 4

# Earned Degrees Conferred

Historical growth in enrollment in degree-granting institutions has led to a substantial increase in the number of earned degrees conferred. Just as the unprecedented rise in female enrollment contributed to the increased number of college students, so too has it boosted the number of degrees conferred. Between 1986–87 and 1999–2000, the number of degrees awarded to women rose at all levels. In 1999–2000, women earned the majority of associate's, bachelor's, and master's degrees, 44 percent of doctor's degrees, and 45 percent of first-professional degrees. By 2011–12, the number of degrees awarded are expected to increase across all levels.

Projections of earned degrees by level and sex were based primarily on college-age populations and college enrollment by level and by attendance status. Factors that affect future levels of earned degrees, such as choice of degree and demand for occupations, were not included in the projection models. NCES projections of earned degrees by level that have been produced over the last 6 years are less accurate than projections of public elementary and secondary enrollment. For more information, see table A2, page 79.

## Associate's Degrees

Between 1986–87 and 1999–2000, the number of associate's degrees increased from 436,304 to 564,933 (table 26 and figure 40). It is projected to increase to 669,000 by 2011–12, an increase of 18 percent from 1999–2000. The number of associate's degrees awarded to men decreased from 190,839 in 1986–87 to 186,316 in 1988–89, before rising to 224,721 in 1999–2000. This number is projected to increase to 238,000 by 2011–12. The number of associate's degrees awarded to women decreased from 245,465 in 1986–87 to 245,038 in 1987–88. Then it increased to 340,212 in 1999–2000, an increase of 39 percent from 1986–87. This number is projected to increase to 431,000 by 2011–12, an increase of 27 percent from 1999–2000.

## Bachelor's Degrees

The number of bachelor's degrees increased from 991,264 in 1986–87 to 1,237,875 in 1999–2000, an increase of 25 percent (table 27 and figure 41). This number is expected to increase to 1,437,000 by 2011–12, an increase of 16 percent from 1999–2000. The number of bachelor's degrees awarded to men decreased from 480,782 in 1986–87 to 477,203 in 1987–88. It increased to 532,881 in 1992–93. Then this number decreased to 518,746 in 1998–99. In 1999–2000, this number increased to 530,367. This number is expected to increase to 587,000 by 2011–12, an increase of 11 percent from 1999–2000. The number of bachelor's degrees awarded to women increased from 510,482 in 1986–87 to 707,508 in 1999–2000, an increase of 39 percent. This number is expected to increase to 850,000 by 2011–12, an increase of 20 percent from 1999–2000.

## Master's Degrees

The number of master's degrees increased from 289,349 in 1986–87 to 457,056 in 1999–2000, an increase of 58 percent (table 28 and figure 42). This number is expected to increase to 475,000 in 2000–01 and then decrease to 467,000 in 2003–04. Thereafter, it will increase to 501,000 in 2011–12. The number of master's degrees awarded to men increased from 141,269 in 1986–87 to 191,792 in 1999–2000. This number is projected to increase to 202,000 in 2000–01 and then decrease to 197,000 by 2005–06. This number is expected to increase to 204,000 by 2011–12. The number of master's degrees awarded to women increased from 148,080 in 1986–87 to 265,264 in 1999–2000. This number is expected to increase to 297,000 in 2011–12.

## Doctor's Degrees

The number of doctor's degrees increased from 34,041 in 1986–87 to 46,010 in 1997–98. Then this number decreased to 44,077 in 1998–99, followed by an increase to 44,808 in 1999–2000 (table 29 and figure 43). This number is expected to decrease to 44,900 in 2001–02 and then increase to 46,800 in 2011–12. The number of doctor's degrees awarded to men increased

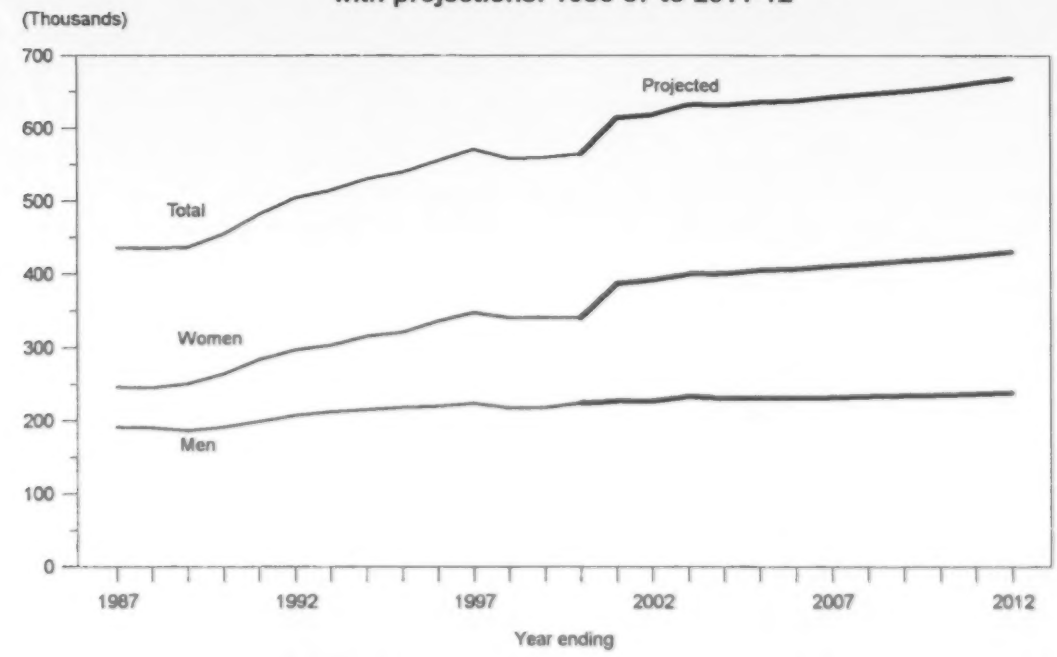
from 22,061 in 1986–87 to 27,146 in 1996–97. Then this number decreased to 25,028 in 1999–2000. This number is expected to decrease to 24,800 in 2000–01 and then increase to 26,000 by 2011–12. The number of doctor's degrees awarded to women rose from 11,980 in 1986–87 to 19,780 in 1999–2000, an increase of 65 percent. The number of doctor's degrees awarded to women is projected to be 20,800 by 2011–12. The share of doctor's degrees awarded to women, which was 35 percent in 1986–87 and 44 percent in 1999–2000, is projected to remain at 44 percent in 2011–12.

## First-Professional Degrees

A first-professional degree is one that signifies both completion of the academic requirements for beginning practice in a given profession and a level of professional skill beyond that normally required for a bachelor's degree. This degree is based on a program requiring at least 2 academic years of work before entrance and a total of at least 6 years of work to complete the degree program, including both prior required college work and the professional program itself. These degrees include fields such as dentistry, medicine, pharmacy, law, and theological professions.

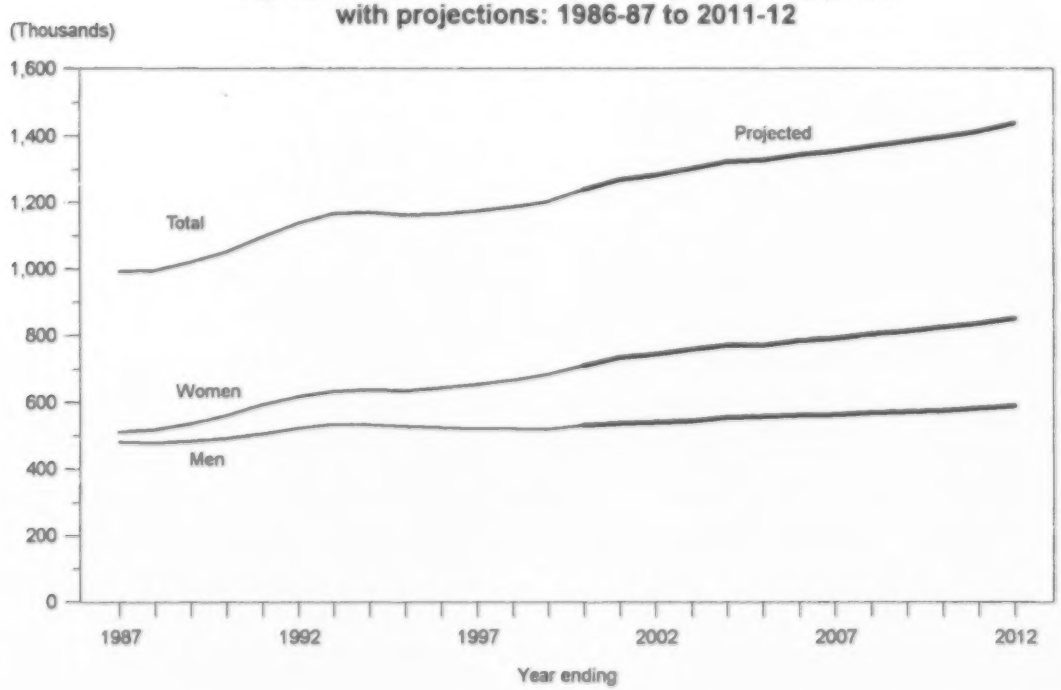
The number of first-professional degrees awarded decreased from 71,617 in 1986–87 to 70,735 in 1987–88. This number increased to 78,730 in 1996–97 and then decreased to 78,439 in 1998–99. Thereafter, it increased to 80,057 in 1999–2000 (table 30 and figure 44). This number is expected to increase to 86,400 by 2011–12. The number of first-professional degrees awarded to men decreased from 46,523 in 1986–87 to 43,846 in 1990–91. Then it increased to 45,153 in 1992–93 and then decreased to 44,239 in 1999–2000. This number is projected to decrease to 43,600 in 2006–07 and then increase to 44,800 by 2011–12. The number of first-professional degrees awarded to women increased from 25,094 in 1986–87 to 35,818 in 1999–2000, an increase of 43 percent. This number is expected to increase to 41,600 by 2011–12, an increase of 16 percent from 1999–2000. The women's proportion of first-professional degrees rose from 35 percent in 1986–87 to 45 percent in 1999–2000. By 2011–12, this proportion is expected to rise to 48 percent.

## Figure 40.—Associate's degrees, by sex of recipient, with projections: 1986-87 to 2011-12



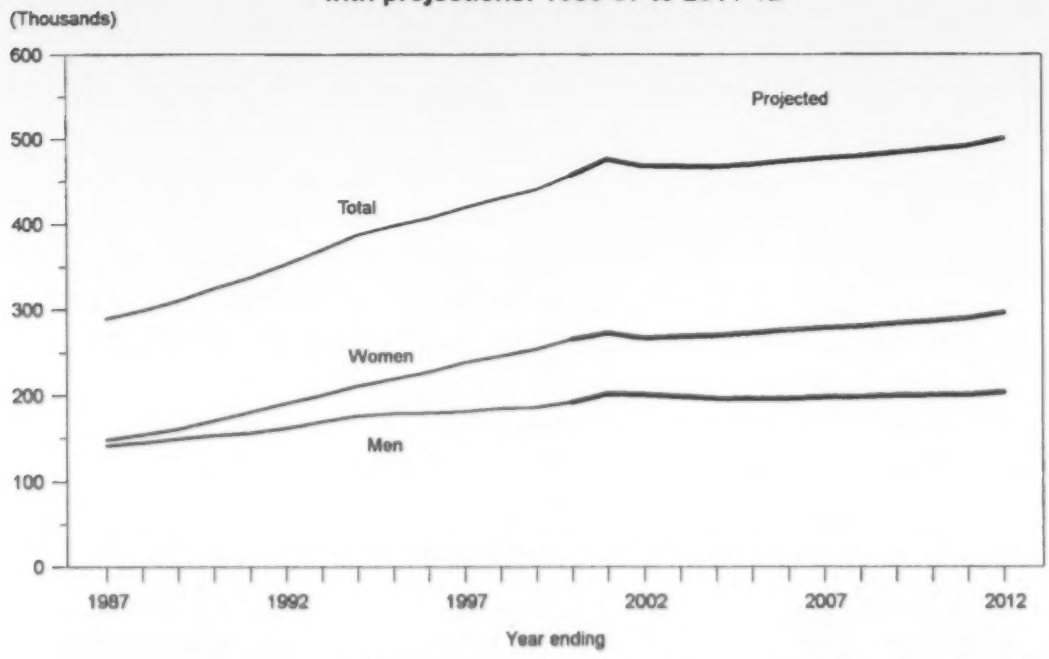

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model.

## Figure 41.—Bachelor's degrees, by sex of recipient, with projections: 1986-87 to 2011-12



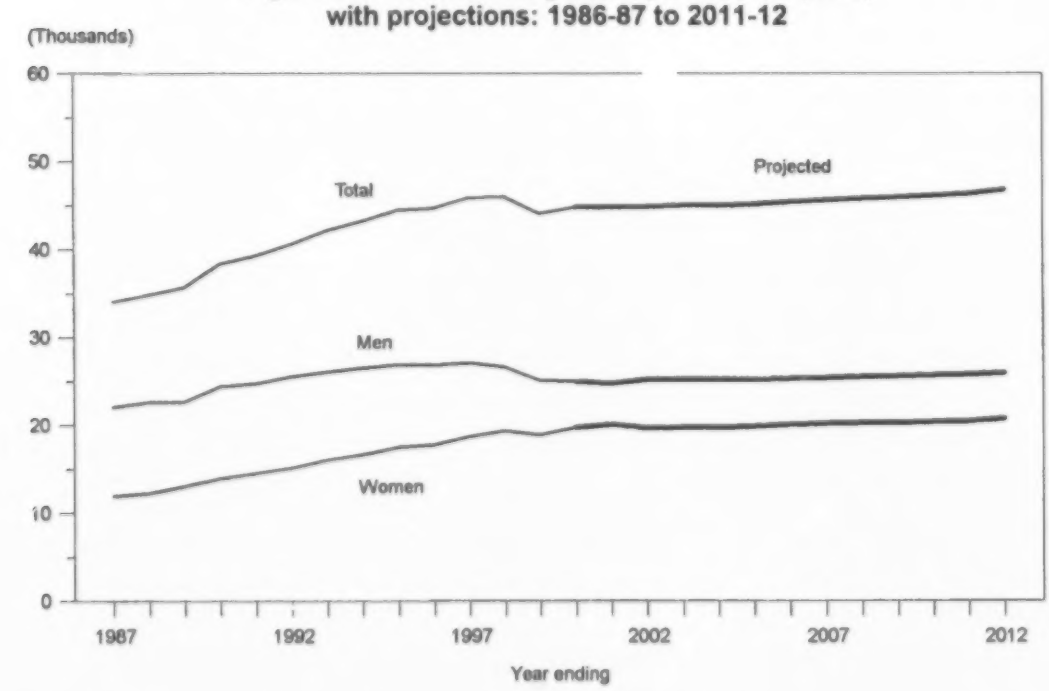

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model.

## Figure 42.—Master's degrees, by sex of recipient, with projections: 1986-87 to 2011-12



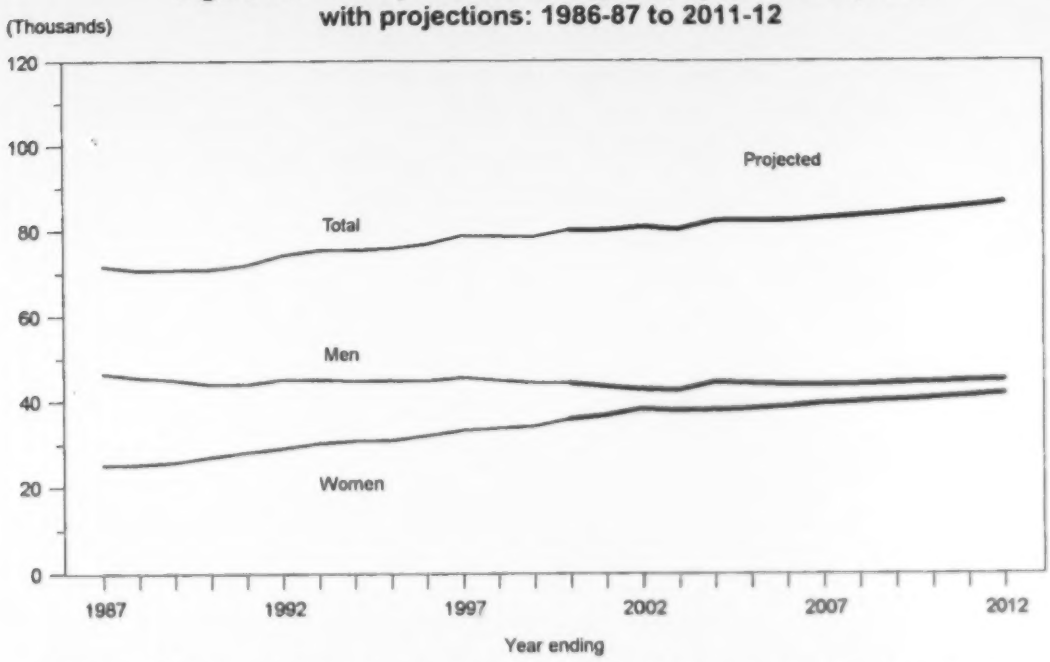

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model.

## Figure 43.—Doctor's degrees, by sex of recipient, with projections: 1986-87 to 2011-12




SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model.

## Figure 44.—First-professional degrees, by sex of recipient, with projections: 1986-87 to 2011-12




SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model.

**Table 26.—Associate's degrees, by sex of recipient, with projections: 1986–87 to 2011–12**

| Year ending | Total | Men | Women |
|---|---|---|---|
| 1987 | 436,304 | 190,839 | 245,465 |
| 1988 | 435,085 | 190,047 | 245,038 |
| 1989 | 436,764 | 186,316 | 250,448 |
| 1990 | 455,102 | 191,195 | 263,907 |
| 1991 | 481,720 | 198,634 | 283,086 |
| 1992 | 504,231 | 207,481 | 296,750 |
| 1993 | 514,756 | 211,964 | 302,792 |
| 1994 | 530,632 | 215,261 | 315,371 |
| 1995 | 539,691 | 218,352 | 321,339 |
| 1996 | 555,216 | 219,514 | 335,702 |
| 1997 | 571,226 | 223,948 | 347,278 |
| 1998 | 558,555 | 217,613 | 340,942 |
| 1999 | 559,954 | 218,417 | 341,537 |
| 2000 | 564,933 | 224,721 | 340,212 |
| **Middle alternative projections** | | | |
| 2001 | 615,000 | 227,000 | 388,000 |
| 2002 | 619,000 | 227,000 | 392,000 |
| 2003 | 633,000 | 233,000 | 400,000 |
| 2004 | 632,000 | 231,000 | 401,000 |
| 2005 | 637,000 | 231,000 | 406,000 |
| 2006 | 638,000 | 231,000 | 407,000 |
| 2007 | 643,000 | 232,000 | 411,000 |
| 2008 | 647,000 | 233,000 | 414,000 |
| 2009 | 652,000 | 234,000 | 418,000 |
| 2010 | 656,000 | 235,000 | 421,000 |
| 2011 | 662,000 | 236,000 | 426,000 |
| 2012 | 669,000 | 238,000 | 431,000 |
| **Low alternative projections** | | | |
| 2001 | 605,000 | 223,000 | 382,000 |
| 2002 | 599,000 | 220,000 | 379,000 |
| 2003 | 595,000 | 219,000 | 376,000 |
| 2004 | 596,000 | 218,000 | 378,000 |
| 2005 | 596,000 | 216,000 | 380,000 |
| 2006 | 597,000 | 216,000 | 381,000 |
| 2007 | 602,000 | 217,000 | 385,000 |
| 2008 | 606,000 | 218,000 | 388,000 |
| 2009 | 610,000 | 219,000 | 391,000 |
| 2010 | 614,000 | 220,000 | 394,000 |
| 2011 | 620,000 | 221,000 | 399,000 |
| 2012 | 627,000 | 223,000 | 404,000 |
| **High alternative projections** | | | |
| 2001 | 624,000 | 230,000 | 394,000 |
| 2002 | 640,000 | 235,000 | 405,000 |
| 2003 | 671,000 | 247,000 | 424,000 |
| 2004 | 668,000 | 244,000 | 424,000 |
| 2005 | 677,000 | 245,000 | 432,000 |
| 2006 | 679,000 | 246,000 | 433,000 |
| 2007 | 684,000 | 247,000 | 437,000 |
| 2008 | 689,000 | 248,000 | 441,000 |
| 2009 | 694,000 | 249,000 | 445,000 |
| 2010 | 698,000 | 250,000 | 448,000 |
| 2011 | 705,000 | 251,000 | 454,000 |
| 2012 | 712,000 | 253,000 | 459,000 |

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model. (This table was prepared May 2002.)

**Table 27.—Bachelor's degrees, by sex of recipient, with projections: 1986–87 to 2011–12**

| Year ending | Total | Men | Women |
|---|---|---|---|
| 1987 | 991,264 | 480,782 | 510,482 |
| 1988 | 994,829 | 477,203 | 517,626 |
| 1989 | 1,018,755 | 483,346 | 535,409 |
| 1990 | 1,051,344 | 491,696 | 559,648 |
| 1991 | 1,094,538 | 504,045 | 590,493 |
| 1992 | 1,136,553 | 520,811 | 615,742 |
| 1993 | 1,165,178 | 532,881 | 632,297 |
| 1994 | 1,169,275 | 532,422 | 636,853 |
| 1995 | 1,160,134 | 526,131 | 634,003 |
| 1996 | 1,164,792 | 522,454 | 642,338 |
| 1997 | 1,172,879 | 520,515 | 652,364 |
| 1998 | 1,184,406 | 519,956 | 664,450 |
| 1999 | 1,200,303 | 518,746 | 681,557 |
| 2000 | 1,237,875 | 530,367 | 707,508 |
| | **Middle alternative projections** | | |
| 2001 | 1,268,000 | 535,000 | 733,000 |
| 2002 | 1,282,000 | 538,000 | 744,000 |
| 2003 | 1,301,000 | 543,000 | 758,000 |
| 2004 | 1,322,000 | 553,000 | 769,000 |
| 2005 | 1,327,000 | 557,000 | 770,000 |
| 2006 | 1,343,000 | 559,000 | 784,000 |
| 2007 | 1,353,000 | 562,000 | 791,000 |
| 2008 | 1,368,000 | 566,000 | 802,000 |
| 2009 | 1,382,000 | 570,000 | 812,000 |
| 2010 | 1,397,000 | 574,000 | 823,000 |
| 2011 | 1,414,000 | 580,000 | 834,000 |
| 2012 | 1,437,000 | 587,000 | 850,000 |
| | **Low alternative projections** | | |
| 2001 | 1,255,000 | 530,000 | 725,000 |
| 2002 | 1,259,000 | 529,000 | 730,000 |
| 2003 | 1,284,000 | 536,000 | 748,000 |
| 2004 | 1,289,000 | 540,000 | 749,000 |
| 2005 | 1,313,000 | 551,000 | 762,000 |
| 2006 | 1,329,000 | 553,000 | 776,000 |
| 2007 | 1,339,000 | 556,000 | 783,000 |
| 2008 | 1,354,000 | 560,000 | 794,000 |
| 2009 | 1,368,000 | 564,000 | 804,000 |
| 2010 | 1,382,000 | 568,000 | 814,000 |
| 2011 | 1,399,000 | 574,000 | 825,000 |
| 2012 | 1,423,000 | 581,000 | 842,000 |
| | **High alternative projections** | | |
| 2001 | 1,291,000 | 545,000 | 746,000 |
| 2002 | 1,298,000 | 545,000 | 753,000 |
| 2003 | 1,334,000 | 557,000 | 777,000 |
| 2004 | 1,335,000 | 559,000 | 776,000 |
| 2005 | 1,340,000 | 562,000 | 778,000 |
| 2006 | 1,356,000 | 564,000 | 792,000 |
| 2007 | 1,365,000 | 567,000 | 798,000 |
| 2008 | 1,381,000 | 571,000 | 810,000 |
| 2009 | 1,396,000 | 576,000 | 820,000 |
| 2010 | 1,410,000 | 579,000 | 831,000 |
| 2011 | 1,428,000 | 586,000 | 842,000 |
| 2012 | 1,437,000 | 587,000 | 850,000 |

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model. (This table was prepared May 2002.)

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**Table 28.—Master's degrees, by sex of recipient, with projections: 1986–87 to 2011–12**

| Year ending | Total | Men | Women |
|---|---|---|---|
| 1987 | 289,349 | 141,269 | 148,080 |
| 1988 | 299,317 | 145,163 | 154,154 |
| 1989 | 310,621 | 149,354 | 161,267 |
| 1990 | 324,301 | 153,653 | 170,648 |
| 1991 | 337,168 | 156,482 | 180,686 |
| 1992 | 352,838 | 161,842 | 190,996 |
| 1993 | 369,585 | 169,258 | 200,327 |
| 1994 | 387,070 | 176,085 | 210,985 |
| 1995 | 397,629 | 178,598 | 219,031 |
| 1996 | 406,301 | 179,081 | 227,220 |
| 1997 | 419,401 | 180,947 | 238,454 |
| 1998 | 430,164 | 184,375 | 245,789 |
| 1999 | 439,986 | 186,148 | 253,838 |
| 2000 | 457,056 | 191,792 | 265,264 |
| **Middle alternative projections** | | | |
| 2001 | 475,000 | 202,000 | 273,000 |
| 2002 | 468,000 | 201,000 | 267,000 |
| 2003 | 468,000 | 199,000 | 269,000 |
| 2004 | 467,000 | 197,000 | 270,000 |
| 2005 | 470,000 | 197,000 | 273,000 |
| 2006 | 473,000 | 197,000 | 276,000 |
| 2007 | 477,000 | 198,000 | 279,000 |
| 2008 | 480,000 | 199,000 | 281,000 |
| 2009 | 484,000 | 200,000 | 284,000 |
| 2010 | 488,000 | 201,000 | 287,000 |
| 2011 | 491,000 | 201,000 | 290,000 |
| 2012 | 501,000 | 204,000 | 297,000 |
| **Low alternative projections** | | | |
| 2001 | 471,000 | 200,000 | 271,000 |
| 2002 | 451,000 | 194,000 | 257,000 |
| 2003 | 455,000 | 194,000 | 261,000 |
| 2004 | 457,000 | 193,000 | 264,000 |
| 2005 | 460,000 | 193,000 | 267,000 |
| 2006 | 463,000 | 193,000 | 270,000 |
| 2007 | 467,000 | 194,000 | 273,000 |
| 2008 | 470,000 | 195,000 | 275,000 |
| 2009 | 473,000 | 195,000 | 278,000 |
| 2010 | 477,000 | 196,000 | 281,000 |
| 2011 | 481,000 | 197,000 | 284,000 |
| 2012 | 491,000 | 200,000 | 291,000 |
| **High alternative projections** | | | |
| 2001 | 480,000 | 204,000 | 276,000 |
| 2002 | 486,000 | 209,000 | 277,000 |
| 2003 | 481,000 | 205,000 | 276,000 |
| 2004 | 477,000 | 201,000 | 276,000 |
| 2005 | 480,000 | 201,000 | 279,000 |
| 2006 | 483,000 | 201,000 | 282,000 |
| 2007 | 487,000 | 202,000 | 285,000 |
| 2008 | 490,000 | 203,000 | 287,000 |
| 2009 | 494,000 | 204,000 | 290,000 |
| 2010 | 498,000 | 205,000 | 293,000 |
| 2011 | 503,000 | 206,000 | 297,000 |
| 2012 | 511,000 | 208,000 | 303,000 |

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model. (This table was prepared May 2002.)

**Table 29.—Doctor's degrees, by sex of recipient, with projections: 1986–87 to 2011–12**

| Year ending | Total | Men | Women |
|---|---|---|---|
| 1987 | 34,041 | 22,061 | 11,980 |
| 1988 | 34,870 | 22,615 | 12,255 |
| 1989 | 35,720 | 22,648 | 13,072 |
| 1990 | 38,371 | 24,401 | 13,970 |
| 1991 | 39,294 | 24,756 | 14,538 |
| 1992 | 40,659 | 25,557 | 15,102 |
| 1993 | 42,132 | 26,073 | 16,059 |
| 1994 | 43,185 | 26,552 | 16,633 |
| 1995 | 44,446 | 26,916 | 17,530 |
| 1996 | 44,652 | 26,841 | 17,811 |
| 1997 | 45,876 | 27,146 | 18,730 |
| 1998 | 46,010 | 26,664 | 19,346 |
| 1999 | 44,077 | 25,146 | 18,931 |
| 2000 | 44,808 | 25,028 | 19,780 |
| **Middle alternative projections** | | | |
| 2001 | 44,900 | 24,800 | 20,100 |
| 2002 | 44,900 | 25,200 | 19,700 |
| 2003 | 45,000 | 25,200 | 19,800 |
| 2004 | 45,000 | 25,200 | 19,800 |
| 2005 | 45,100 | 25,200 | 19,900 |
| 2006 | 45,400 | 25,300 | 20,100 |
| 2007 | 45,600 | 25,400 | 20,200 |
| 2008 | 45,800 | 25,500 | 20,300 |
| 2009 | 45,900 | 25,600 | 20,300 |
| 2010 | 46,100 | 25,700 | 20,400 |
| 2011 | 46,300 | 25,800 | 20,500 |
| 2012 | 46,800 | 26,000 | 20,800 |
| **Low alternative projections** | | | |
| 2001 | 44,000 | 24,300 | 19,700 |
| 2002 | 43,700 | 24,500 | 19,200 |
| 2003 | 43,800 | 24,600 | 19,200 |
| 2004 | 43,500 | 24,400 | 19,100 |
| 2005 | 43,500 | 24,300 | 19,200 |
| 2006 | 43,800 | 24,400 | 19,400 |
| 2007 | 44,000 | 24,500 | 19,500 |
| 2008 | 44,100 | 24,600 | 19,500 |
| 2009 | 44,200 | 24,700 | 19,500 |
| 2010 | 44,400 | 24,800 | 19,600 |
| 2011 | 44,700 | 25,000 | 19,700 |
| 2012 | 45,100 | 25,100 | 20,000 |
| **High alternative projections** | | | |
| 2001 | 45,700 | 25,200 | 20,500 |
| 2002 | 46,100 | 25,800 | 20,300 |
| 2003 | 46,300 | 25,900 | 20,400 |
| 2004 | 46,700 | 26,100 | 20,600 |
| 2005 | 46,800 | 26,100 | 20,700 |
| 2006 | 46,900 | 26,100 | 20,800 |
| 2007 | 47,100 | 26,200 | 20,900 |
| 2008 | 47,300 | 26,300 | 21,000 |
| 2009 | 47,500 | 26,500 | 21,000 |
| 2010 | 47,700 | 26,600 | 21,100 |
| 2011 | 47,900 | 26,700 | 21,200 |
| 2012 | 48,400 | 26,800 | 21,600 |

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model. (This table was prepared May 2002.)

**Table 30.—First-professional degrees, by sex of recipient, with projections: 1986–87 to 2011–12**

| Year ending | Total | Men | Women |
|---|---|---|---|
| 1987 | 71,617 | 46,523 | 25,094 |
| 1988 | 70,735 | 45,484 | 25,251 |
| 1989 | 70,856 | 45,046 | 25,810 |
| 1990 | 70,988 | 43,961 | 27,027 |
| 1991 | 71,948 | 43,846 | 28,102 |
| 1992 | 74,146 | 45,071 | 29,075 |
| 1993 | 75,387 | 45,153 | 30,234 |
| 1994 | 75,418 | 44,707 | 30,711 |
| 1995 | 75,800 | 44,853 | 30,947 |
| 1996 | 76,734 | 44,748 | 31,986 |
| 1997 | 78,730 | 45,564 | 33,166 |
| 1998 | 78,598 | 44,911 | 33,687 |
| 1999 | 78,439 | 44,339 | 34,100 |
| 2000 | 80,057 | 44,239 | 35,818 |
| **Middle alternative projections** | | | |
| 2001 | 80,100 | 43,400 | 36,700 |
| 2002 | 80,800 | 42,700 | 38,100 |
| 2003 | 80,200 | 42,500 | 37,700 |
| 2004 | 82,200 | 44,300 | 37,900 |
| 2005 | 82,200 | 44,000 | 38,200 |
| 2006 | 82,300 | 43,600 | 38,700 |
| 2007 | 82,900 | 43,600 | 39,300 |
| 2008 | 83,500 | 43,800 | 39,700 |
| 2009 | 84,100 | 44,000 | 40,100 |
| 2010 | 84,900 | 44,300 | 40,600 |
| 2011 | 85,700 | 44,600 | 41,100 |
| 2012 | 86,400 | 44,800 | 41,600 |
| **Low alternative projections** | | | |
| 2001 | 78,800 | 42,700 | 36,100 |
| 2002 | 79,600 | 42,100 | 37,500 |
| 2003 | 79,100 | 41,900 | 37,200 |
| 2004 | 79,100 | 42,600 | 36,500 |
| 2005 | 79,000 | 42,300 | 36,700 |
| 2006 | 79,100 | 41,900 | 37,200 |
| 2007 | 79,800 | 42,000 | 37,800 |
| 2008 | 80,400 | 42,200 | 38,200 |
| 2009 | 81,000 | 42,400 | 38,600 |
| 2010 | 81,600 | 42,600 | 39,000 |
| 2011 | 82,400 | 42,900 | 39,500 |
| 2012 | 83,100 | 43,100 | 40,000 |
| **High alternative projections** | | | |
| 2001 | 81,300 | 44,100 | 37,200 |
| 2002 | 82,000 | 43,300 | 38,700 |
| 2003 | 81,300 | 43,100 | 38,200 |
| 2004 | 85,300 | 45,900 | 39,400 |
| 2005 | 85,200 | 45,600 | 39,600 |
| 2006 | 85,500 | 45,300 | 40,200 |
| 2007 | 86,100 | 45,300 | 40,800 |
| 2008 | 86,700 | 45,500 | 41,200 |
| 2009 | 87,400 | 45,700 | 41,700 |
| 2010 | 88,100 | 46,000 | 42,100 |
| 2011 | 88,900 | 46,300 | 42,600 |
| 2012 | 89,700 | 46,500 | 43,200 |

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model. (This table was prepared May 2002.)

# Technical Appendixes

# Appendix A
# Projection Methodology

The general procedure for *Projections* was to express the variable to be projected as a percent of a "base" variable. These percents were then projected and applied to projections of the "base" variable. For example, the number of 18-year-old college students was expressed as a percent of the 18-year-old population for each year from 1972 through 2000. This enrollment rate was then projected through the year 2012 and applied to projections of the 18-year-old population from the U.S. Census Bureau.

Enrollment projections are based primarily on population projections. Projections of high school graduates and earned degrees conferred are based primarily on enrollment projections.

Exponential smoothing and multiple linear regression are the two major projection techniques used in this publication. Single exponential smoothing is used when the historical data have a basically horizontal pattern. On the other hand, double exponential smoothing is used when the time series is expected to change linearly with time. In general, exponential smoothing places more weight on recent observations than on earlier ones. The weights for observations decrease exponentially as one moves further into the past. As a result, the older data have less influence on these projections. The rate at which the weights of older observations decrease is determined by the smoothing constant selected.

$$P = \alpha X_t + \alpha(1-\alpha)X_{t-1} + \alpha(1-\alpha)^2 X_{t-2}$$
$$+ \alpha(1-\alpha)^3 X_{t-3} + \ldots\ldots$$

**Where:**

$P$ = projected value

$\alpha$ = smoothing constant ($0 < \alpha < 1$)

$X_t$ = observation for time t

This equation illustrates that the projection is a weighted average based on exponentially decreasing weights. For a high smoothing constant, weights for earlier observations decrease rapidly. For a low smoothing constant, decreases are more moderate. Projections of enrollments and public high school graduates are based on a smoothing constant of $\alpha = 0.4$.

The farther apart the observations are spaced in time, the more likely it is that there are changes in the underlying social, political, and economic structure. Since the observations are on an annual basis, major shifts in the underlying process are more likely in the time span of just a few observations than if the observations were available on a monthly or weekly basis. As a result, the underlying process for annual models tends to be less stable from one observation to the next. Another reason for using high smoothing constants for some time series is that most of the observations are fairly accurate, because most observations are population values rather than sample estimates. Therefore, large shifts tend to indicate actual changes in the process rather than noise in the data.

Multiple linear regression is also used in making projections of college enrollment and earned degrees conferred. This technique is used when it is believed that a strong relationship exists between the variable being projected (the dependent variable) and independent variables. However, this technique is used only when accurate data and reliable projections of the independent variables are available.

The functional form primarily used is the multiplicative model. When used with two independent variables, this model takes the form:

$$Y = aX_1^{b_1} X_2^{b_2}$$

This equation can easily be transformed into the linear form by taking the natural log (ln) of both sides of the equation:

$$\ln Y = \ln(a) + b_1 \ln X_1 + b_2 \ln X_2$$

The multiplicative model has a number of advantages. Research has found that it is a reasonable way to represent human behavior. Constant elasticities are assumed, which means that a 1 percent change in lnX will lead to a given percent change in lnY. This

percent change is equal to $b_1$. And the multiplicative model lends itself easily to "a priori" analysis because the researcher does not have to worry about units of measurement when specifying relationships. In fact, the multiplicative model is considered the standard in economic analyses. For additional information, see *Long-Range Forecasting: From Crystal Ball to Computer* by J. Scott Armstrong (John Wiley and Sons, 1978, pp. 180–181).

## Caveats

Because projections are subject to errors from many sources, alternative projections are shown for some statistical series. These alternatives are not statistical confidence intervals, but instead represent outcomes based on alternative growth patterns. Alternative projections were developed for college enrollment and earned degrees conferred.

## Assumptions

All projections are based on underlying assumptions, and these assumptions determine projection results to a large extent. It is important that users of projections understand the assumptions to determine the acceptability of projected time series for their purposes. Descriptions of the primary assumptions upon which the projections of time series are based are presented in table A1, page 78.

For most projections, low, middle, and high alternatives are shown. These alternatives reveal the level of uncertainty involved in making projections, and they also point out the sensitivity of projections to the assumptions on which they are based.

Many of the projections in this publication are demographically based on U.S. Census Bureau middle series projections of the population by age, but are not adjusted for the 1990 net undercount of 4 to 5 million. The population projections developed by the U.S. Census Bureau reflect the incorporation of the 2000 estimates which are still based on the 1990 census and the middle series assumptions for the fertility rate, internal migration, net immigration, and a declining mortality rate. For a discussion on the intercensal population estimates, see appendix C, page 112.

These middle series population projections are based on the estimated population as of January 1, 1999 and the estimated base population as of April 1, 1990. The future fertility rate assumption, which determines projections of the number of births, is one key assumption in making population projections.

The middle series population projections assume an ultimate complete cohort fertility rate of 2.13 births per woman by the year 2012. Yearly net migration is assumed to decrease from 980,425 in 2001 to 719,797 by 2010. Then it is projected to increase to 728,293 in 2012. This assumption plays a major role in determining population projections for the age groups enrolled in nursery school, kindergarten, and elementary grades. The effects of the fertility rate assumption are more pronounced toward the end of the projection period, while the immigration assumptions affect all years.

For enrollments in secondary grades and college, the fertility assumption is of no consequence, since all students enrolled at these levels were already born when the population projections were made. For projections of enrollments in elementary schools, only middle series population projections were considered. Projections of high school graduates are based on projections of the percent of grade 12 enrollment that are high school graduates. Projections of associate's, bachelor's, master's, doctor's, and first-professional degrees are based on projections of college-age populations and college enrollment, by sex, attendance status and level enrolled by student, and by type of institution. Projections of college enrollment are also based on disposable income per capita and unemployment rates. Projections of disposable income per capita and unemployment rates were obtained from the company DRI•WEFA, Inc. Therefore, many additional assumptions made in projecting disposable income per capita and unemployment rates apply to projections based on projections of these variables.

## Limitations of Projections

Projections of time series usually differ from the final reported data due to errors from many sources. This is because of the inherent nature of the statistical universe from which the basic data are obtained and the properties of projection methodologies, which depend on the validity of many assumptions. Therefore, alternative projections are shown for most statistical series to denote the uncertainty involved in making projections. These alternatives are not statistical confidence limits, but instead represent judgments made by the authors as to reasonable upper and lower bounds. The mean absolute percentage error is one way to express the forecast accuracy of past projections. This measure expresses the average value of the absolute value of errors in percentage terms. For example, the mean absolute percentage errors of public school enrollment in grades K–12 for lead times of 1, 2, 5, and 10 years were 0.2, 0.5, 1.1, and 2.7 percent, respectively. On

the other hand, mean absolute percentage errors for doctor's degrees for lead times of 1, 2, and 5 years were 2.6, 3.4, and 3.0 percent respectively. For more information on mean absolute percentage errors, see table A2, page 79.

**Table A1.—Summary of forecast assumptions to 2012**

| Variables | Middle alternative | Low alternative | High alternative |
|---|---|---|---|
| **Demographic Assumptions** | | | |
| Population | Projections are consistent with the Census Bureau middle series estimates, which assume a fertility rate of 2.13 births per woman by the year 2012, a yearly net migration ranging from 719,800 to 980,400 per year, and a further reduction in the mortality rate. | Same as middle alternative | Same as middle alternative |
| 18- to 24-year-old population | Average annual growth rate of 1.2% | Same as middle alternative | Same as middle alternative |
| 25- to 29-year-old population | Average annual growth rate of 1.0% | Same as middle alternative | Same as middle alternative |
| 30- to 34-year-old population | Average annual growth rate of 0.1% | Same as middle alternative | Same as middle alternative |
| 35- to 44-year-old population | Average annual decline of 1.2% | Same as middle alternative | Same as middle alternative |
| Undergraduate enrollment | Average annual growth rate of 1.2% | Average annual growth rate of 1.0% | Average annual growth rate of 1.5% |
| Graduate enrollment | Average annual growth rate of 0.9% | Average annual growth rate of 0.7% | Average annual growth rate of 1.2% |
| First-professional enrollment | Average annual growth rate of 1.0% | Average annual growth rate of 0.8% | Average annual growth rate of 1.3% |
| **Economic Assumptions** | | | |
| Disposable income per capita in constant dollars | Annual percent changes range between 0.5% and 4.5% with an annual compound growth rate of 2.5% | Same as middle alternative | Same as middle alternative |
| Inflation rate | Inflation rate ranges between 1.6% and 3.2% | Inflation rate ranges between 1.6% and 3.5% | Inflation rate ranges between 2.0% and 2.6% |
| **Unemployment Rate (Men)** | | | |
| Age 18 to 19 | Remains between 12.6% and 16.8% | Same as middle alternative | Same as middle alternative |
| Age 20 to 24 | Remains between 8.2% and 11.6% | Same as middle alternative | Same as middle alternative |
| Age 25 and over | Remains between 3.5% and 5.1% | Same as middle alternative | Same as middle alternative |
| **Unemployment Rate (Women)** | | | |
| Age 18 to 19 | Remains between 10.8% and 13.0% | Same as middle alternative | Same as middle alternative |
| Age 20 to 24 | Remains between 8.0% and 9.6% | Same as middle alternative | Same as middle alternative |
| Age 25 and over | Remains between 3.0% and 4.0% | Same as middle alternative | Same as middle alternative |

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-25, Nos. 1092, 1095, and "National Population Estimates," December 2001, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000; and DRI-WEFA, "U.S. Quarterly Model" (This table was prepared May 2002.)

**Table A2.—Mean absolute percentage errors (MAPEs) by lead time for selected statistics in all public elemen... and secondary schools and degree-granting institutions**

| Statistics | Lead time (years) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| **Public elementary and secondary schools[1]** | | | | | | | | | | |
| K-12 enrollment | 0.2 | 0.5 | 0.7 | 0.9 | 1.1 | 1.4 | 1.7 | 2.0 | 2.4 | 2.7 |
| K-8 enrollment | 0.3 | 0.5 | 0.8 | 0.9 | 1.2 | 1.6 | 2.1 | 2.8 | 3.4 | 4.0 |
| 9-12 enrollment | 0.6 | 0.8 | 0.9 | 1.2 | 1.4 | 1.7 | 2.2 | 2.5 | 2.7 | 2.9 |
| High school graduates | 0.7 | 0.9 | 1.4 | 1.9 | 1.6 | 1.8 | 2.5 | 3.5 | 3.8 | 4.2 |
| **Degree-granting institutions[2]** | | | | | | | | | | |
| Total enrollment | 1.2 | 0.8 | 1.0 | 1.2 | 2.4 | 3.1 | 1.2 | (3) | (3) | (3) |
| Men | 1.3 | 1.5 | 2.0 | 2.7 | 3.7 | 4.8 | 3.9 | (3) | (3) | (3) |
| Women | 1.7 | 1.8 | 1.4 | 0.8 | 1.4 | 1.8 | 0.9 | (3) | (3) | (3) |
| 4-year | 1.1 | 1.4 | 1.3 | 1.9 | 2.6 | 2.8 | 2.4 | (3) | (3) | (3) |
| 2-year | 2.2 | 1.9 | 1.9 | 2.1 | 2.9 | 3.6 | 0.8 | (3) | (3) | (3) |
| Associate's degrees | 2.4 | 3.3 | 3.9 | 5.8 | 6.6 | 6.1 | 4.8 | (3) | (3) | (3) |
| Bachelor's degrees | 1.0 | 2.1 | 2.2 | 3.5 | 4.1 | 4.4 | 3.8 | (3) | (3) | (3) |
| Master's degrees | 1.2 | 4.3 | 6.8 | 6.7 | 5.5 | 5.2 | 6.4 | (3) | (3) | (3) |
| Doctor's degrees | 2.6 | 3.4 | 1.9 | 3.3 | 3.0 | 1.6 | 3.1 | (3) | (3) | (3) |
| First-professional degrees | 1.6 | 1.6 | 1.8 | 4.5 | 5.9 | 7.3 | 5.1 | (3) | (3) | (3) |

[1]MAPEs for enrollments and high school graduates were calculated using the last 19 editions of the *Projections of Education Statistics*.

[2]MAPEs for enrollments and earned degrees were calculated using the last 6 editions of the *Projections of Education Statistics*.

[3]Not all actual values were available to calculate a MAPE of this lead time.

NOTE: Mean absolute percentage error is the average value of the absolute values of errors expressed in percentage terms. Calculations were made using unrounded numbers. Some data have been revised from previously published numbers.

SOURCES: U.S. Department of Education, National Center for Education Statistics, *Projections of Education Statistics*, various issues.

(This table was prepared May 2002.)



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# A1. Enrollment

## National

Enrollment projections were based on projected enrollment rates, by age and sex, which were applied to population projections by age and sex developed by the U.S. Census Bureau. These enrollment rates were projected by taking into account the most recent trends, as well as the effects of economic conditions and demographic changes on a person's decision to enter college. The enrollment rates were then used in the Education Forecasting Model (EDMOD), which consists of age-specific rates by sex and by enrollment levels.

## Education Forecasting Model

The first stage of EDMOD is an age-specific enrollment model in which enrollment rates are projected and applied to age-specific population projections. This stage, which is used separately for each sex, includes the following categories: (1) full-time college enrollment and (2) part-time college enrollment. Within an enrollment category, where applicable, enrollment rates were projected by individual ages 16 through 24 and for the age groups 25 to 29, 30 to 34, and 35 years and over.

Enrollments by age and age groups from the U.S. Census Bureau were adjusted to NCES totals to compute enrollment rates for 1972 through 2000. Different assumptions were made to produce low, middle, and high alternative projections of enrollment rates to the year 2012.

### College Full-Time and Part-Time Enrollment

Projections of full-time and part-time college enrollments were considered only for ages 16 and over. College enrollment is negligible for earlier ages. Full-time and part-time enrollments are modeled as two distinct groups. Three alternative projections were made using various economic assumptions. Table A1.1 shows enrollment rates for 2000 and middle alternative projected enrollment rates for 2007 and 2012. Table A1.2 shows the equations used to project enrollment rates for men by attendance status. Table A1.3 shows the equations used to project enrollment rates for women by attendance status.

### Enrollment in Public Elementary and Secondary Schools, by Grade Group and Organizational Level

The second stage of EDMOD projects public enrollment in elementary and secondary schools by grade group and by organizational level. Public enrollments by age were based on enrollment rate projections for nursery and kindergarten, grade 1, elementary ungraded and special, secondary ungraded and special, and postgraduate enrollment. Grade progression rate projections were used for grades 2 through 12. Table A1.4 shows the public school enrollment rates and table A1.5 shows the public school grade progression rates for 2000 and projections for 2007 and 2012. The projected rates in tables A1.4 and A1.5 were used to compute the projections of enrollments in elementary and secondary schools, by grade, shown in table 1.

### College Enrollment, by Sex, Attendance Status, and Level Enrolled; and by Type and Control of Institution

The third stage of EDMOD projects enrollments in institutions of higher education, by sex, attendance status, and level enrolled by student and by type and control of institution. For each age group, the percent of total enrollment by age, attendance status, level enrolled, and type of institution was projected. These projections for 2007 and 2012 are shown in tables A1.6 and A1.7, along with actual values for 2000. For all projections, it was assumed that there was no enrollment in 2-year institutions at the postbaccalaureate level (graduate and first-professional).

The projected rates in tables A1.6 and A1.7 were then adjusted to agree with the projected age-specific enrollment rates in the first stage of EDMOD. The adjusted rates were then applied to the projected enrollments by age group, sex, and attendance status from the first stage of EDMOD to obtain projections by age group, sex, attendance status, level enrolled, and type of institution.

For each enrollment category—sex, attendance status, level enrolled, and type of institution—public enrollment was projected as a percent of total enrollment. Projections for 2007 and 2012 are shown in table A1.8, along with actual percents for 2000. The projected rates were then applied to the projected

enrollments in each enrollment category to obtain projections by control of institution.

For each category by sex, enrollment level, and type and control of institution, graduate enrollment was projected as a percent of postbaccalaureate enrollment. Actual rates for 2000 and projections for 2007 and 2012 are shown in table A1.9. The projected rates in table A1.9 were then applied to projections of postbaccalaureate enrollment to obtain graduate and first-professional enrollment projections by sex, attendance status, and type and control of institution.

### Full-Time-Equivalent Enrollment, by Type and Control of Institution and by Level Enrolled

The fourth stage of EDMOD projects full-time-equivalent enrollment, by type and control of institution and by level enrolled. For each enrollment category by level enrolled and by type and control of institution, the full-time-equivalent of part-time enrollment was projected as a percent of part-time enrollment. Actual percents for 2000 and projections for 2007 and 2012 are shown in table A1.10.

These projected percents were applied to projections of enrollment by level enrolled and by type and control of institution from the third stage of EDMOD. The projections were added to projections of full-time enrollment (from the previous stage) to obtain projections of full-time-equivalent enrollment.

## Projection Accuracy

An analysis of projection errors from the past 19 editions of *Projections of Education Statistics* indicates that the mean absolute percentage errors (MAPEs) for lead times of 1, 2, 5, and 10 years out for projections of public school enrollment in grades K–12 were 0.2, 0.5, 1.1, and 2.7 percent, respectively. For the 1-year-out prediction, this means that one would expect the projection to be within 0.2 percent of the actual value, on the average. For projections of public school enrollment in grades K–8, the MAPEs for lead times of 1, 2, 5, and 10 years were 0.3, 0.5, 1.2, and 4.0 percent, respectively, while those for projections of public school enrollment in grades 9–12 were 0.6, 0.8, 1.4, and 2.9 percent for the same lead times.

For projections of total enrollment in degree-granting institutions, an analysis of projection errors based on the past 6 editions of *Projections of Education Statistics* indicates that the MAPEs for lead times of 1, 2, and 5 years were 1.2, 0.8, and 2.4 percent, respectively. For the 1-year-out prediction, this means that one would expect the projection to be within 1.2 percent of the actual value, on the average. For more information on mean absolute percentage errors, see table A2, page 79.

## Basic Methodology

The notation and equations that follow describe the basic models used to project public elementary and secondary enrollment.

### Public Elementary and Secondary Enrollment

Let:

$i$ = Subscript denoting age

$j$ = Subscript denoting grade

$t$ = Subscript denoting time

$K_t$ = Enrollment at the nursery and kindergarten level

$G_{jt}$ = Enrollment in grade $j$

$G_{1t}$ = Enrollment in grade 1

$E_t$ = Enrollment in elementary special and ungraded programs

$S_t$ = Enrollment in secondary special and ungraded programs

$PG_t$ = Enrollment in postgraduate programs

$P_{it}$ = Population age $i$

$RK_t$ = Enrollment rate for nursery and kindergarten

$RG_{1t}$ = Enrollment rate for grade 1

$RE_t$ = Enrollment rate for elementary special and ungraded programs

$RS_t$ = Enrollment rate for secondary special and ungraded programs

$RPG_t$ = Enrollment rate for postgraduate programs

$EG_t$ = Total enrollment in elementary grades (K-8)

$SG_t$ = Total enrollment in secondary grades (9-12)

$R_{jt}$ = Progression rate for grade j: the proportion that enrollment in grade j in year t is of enrollment in grade j - 1 in year t-1.

**Then:**

$$EG_t = K_t + E_t + \sum_{j=1}^{8} G_{jt}$$

$$SG_t = S_t + PG_t + \sum_{j=9}^{12} G_{jt}$$

**Where:**

$$K_t = RK_t(P_{5t})$$

$$G_{jt} = R_{jt}\left(G_{j-1,t-1}\right)$$

$$E_t = RE_t\left(\sum_{j=5}^{13} P_{it}\right)$$

$$G_{1t} = RG_{it}(P_{6t})$$

$$S_t = RS_t\left(\sum_{i=14}^{17} P_{it}\right)$$

$$PG_t = RPG_t(P_{18t})$$

## Higher Education Enrollment

For institutions of higher education, projections were computed separately by sex and attendance status of student. The notation and equations are:

**Let:**

i = Subscript denoting age except:
i = 25: ages 25-29

i = 26: ages 30-34

i = 27: ages 35 and over for enrollment (35-44 for population)

t = Subscript denoting year

$E_{it}$ = Enrollment of students age i

$P_{it}$ = Population age i

$R_{it}$ = Enrollment rate for students age i

$T_{it}$ = Total enrollment for particular subset of students: full-time men, full-time women, part-time men, part-time women

**Then:**

$$T_{it} = \sum_{i=16}^{27} E_{it}$$

**Where:**

$$E_{it} = R_{it}(P_{it})$$

## Methodological Tables

Tables A1.11 and A1.12 give the rates used to calculate projections of enrollments and basic assumptions underlying enrollment projections.

## Private School Enrollment

This edition is the second report that contains projected trends in elementary and secondary enrollment by grade level in private schools produced using the grade progression rate method.

Private school enrollment data from the National Center for Education Statistics' Private School Universe Survey for 1989–90, 1991–92, 1993–94, 1995–96, 1997–98, and 1999–2000 were used to develop these projections. In addition, population estimates for 1989 to 1999 and population projections for 2000 to 2012 from the U.S. Census were used to develop the projections.

The grade progression rate method was used to project private elementary and secondary school enrollment. The grade progression rate method starts with 6-year-olds entering first grade and then follows their progress through private elementary and secondary

schools. The method requires calculating the ratio of the number of children in one year who "survive" the year and enroll in the next grade the following year.

Projections of enrollment in private elementary and secondary schools were developed using primarily the grade progression rate method. Kindergarten and first grade enrollments are based on projected enrollment rates of 5- and 6-year-olds. These projected enrollment rates are applied to population projections of 5- and 6-year-olds developed by the U.S. Census Bureau.

Enrollments in grades 2 through 12 are based on projected grade progression rates. These projected rates are then applied to the current enrollment by grade to yield grade-by-grade projections for future years. Enrollment rates of 5- and 6-year-olds and grade progression rates are projected using single exponential smoothing. Elementary ungraded and special enrollments and secondary ungraded and special enrollments are projected to remain constant at their 1999 levels. To obtain projections of total enrollment, projections of enrollments for the individual grades (kindergarten through 12) and ungraded and special classes were summed.

The grade progression rate method assumes that past trends in factors affecting private school enrollments will continue over the projection period. This assumption implies that all factors influencing enrollments will display future patterns consistent with past patterns. This method implicitly includes the net effect of such factors as migration, dropouts, deaths, nonpromotion, and transfers to and from public schools.

Mean absolute percentage errors (MAPEs) of the projection accuracy of private school enrollment were not developed because these projections were prepared for the first time using a new data source and methodology. As additional data becomes available MAPEs can then be calculated.

### State Level

For the 50 States and the District of Columbia, this edition contains projected trends in elementary and secondary enrollment by grade level in public schools from 2001 to the year 2012. This is the eighth report on state-level projections for public school elementary and secondary education statistics.

Public school enrollment data from the National Center for Education Statistics' Common Core of Data survey for 1970 to 2000 were used to develop these projections. This survey does not collect data on enrollment for private schools. In addition, population estimates for 1970 to 2000 and population projections for 2001 to 2012 from the U.S. Census Bureau were used to develop the projections.

Table A1.11 describes the number of years, projection methods, and smoothing constants used to project enrollments in public schools. Also included in table A1.11 is the procedure for choosing the different smoothing constants for the time series models.

Projections of enrollment in public elementary and secondary schools by state were developed using primarily the grade progression rate method. Kindergarten and first grade enrollments are based on projected enrollment rates of 5- and 6-year-olds. These projected enrollment rates are applied to population projections of 5- and 6-year-olds developed by the U.S. Census Bureau.

Enrollments in grades 2 through 12 are based on projected grade progression rates in each state. These projected rates are then applied to the current enrollment by grade to yield grade-by-grade projections for future years. Enrollment rates of 5- and 6-year-olds and grade progression rates are projected using single exponential smoothing. Elementary ungraded and special enrollments and secondary ungraded and special enrollments are projected to remain constant at their 2000 levels. To obtain projections of total enrollment, projections of enrollments for the individual grades (kindergarten through 12) and ungraded and special classes were summed.

The grade progression rate method assumes that past trends in factors affecting public school enrollments will continue over the projection period. This assumption implies that all factors influencing enrollments will display future patterns consistent with past patterns. Therefore, this method has limitations when applied to states with unusual changes in migration rates. This method implicitly includes the net effect of such factors as migration, dropouts, deaths, nonpromotion, and transfers to and from private schools.

## Adjustment to National Projections

The sum of the projections of state enrollments was adjusted to equal the national projections of public school K–12, K–8, and 9–12 enrollments shown in table 1. For details on the methods used to develop the national projections for this statistic, see the section on national enrollment projections in this appendix.

**Table A1.1.—College enrollment rates, by age, sex, and attendance status, with middle alternative projections: Fall 2000, 2007, and 2012**

| Age, sex, and attendance status | Actual | Projected | |
|---|---|---|---|
| | 2000 | 2007 | 2012 |
| **Men** | | | |
| **Full-time** | | | |
| 16 years old | 0.4 | 0.3 | 0.3 |
| 17 years old | 1.8 | 3.5 | 3.6 |
| 18 years old | 26.8 | 31.3 | 32.0 |
| 19 years old | 33.5 | 33.8 | 34.6 |
| 20 years old | 29.8 | 29.9 | 30.5 |
| 21 years old | 24.6 | 27.5 | 28.0 |
| 22 years old | 22.2 | 19.5 | 19.7 |
| 23 years old | 14.2 | 13.7 | 14.0 |
| 24 years old | 10.2 | 10.6 | 10.8 |
| 25 to 29 years old | 4.7 | 4.7 | 4.8 |
| 30 to 34 years old | 2.0 | 1.8 | 1.9 |
| 35 to 44 years old | 1.1 | 0.9 | 0.9 |
| **Part-time** | | | |
| 16 years old | 0.0 | 0.1 | 0.1 |
| 17 years old | 0.5 | 0.7 | 0.7 |
| 18 years old | 7.1 | 4.9 | 5.0 |
| 19 years old | 9.0 | 7.5 | 7.1 |
| 20 years old | 7.5 | 6.8 | 6.9 |
| 21 years old | 6.1 | 6.4 | 6.5 |
| 22 years old | 7.8 | 8.5 | 8.7 |
| 23 years old | 7.5 | 6.7 | 6.8 |
| 24 years old | 10.2 | 5.6 | 5.8 |
| 25 to 29 years old | 5.0 | 5.7 | 5.9 |
| 30 to 34 years old | 3.4 | 3.8 | 3.9 |
| 35 to 44 years old | 3.4 | 3.7 | 3.8 |
| **Women** | | | |
| **Full-time** | | | |
| 16 years old | 0.5 | 0.3 | 0.3 |
| 17 years old | 3.3 | 4.1 | 4.6 |
| 18 years old | 40.9 | 44.3 | 46.4 |
| 19 years old | 44.6 | 44.4 | 46.5 |
| 20 years old | 35.9 | 37.5 | 39.4 |
| 21 years old | 31.2 | 33.3 | 35.2 |
| 22 years old | 21.0 | 19.6 | 20.5 |
| 23 years old | 14.4 | 14.5 | 15.3 |
| 24 years old | 11.3 | 11.4 | 12.1 |
| 25 to 29 years old | 5.2 | 4.9 | 5.2 |
| 30 to 34 years old | 2.3 | 2.5 | 2.7 |
| 35 to 44 years old | 1.5 | 2.0 | 2.2 |
| **Part-time** | | | |
| 16 years old | 0.0 | 0.0 | 0.0 |
| 17 years old | 0.4 | 0.7 | 0.7 |
| 18 years old | 4.2 | 6.2 | 6.2 |
| 19 years old | 9.2 | 7.4 | 7.2 |
| 20 years old | 8.3 | 7.9 | 8.0 |
| 21 years old | 10.8 | 8.1 | 8.0 |
| 22 years old | 8.0 | 10.4 | 10.7 |
| 23 years old | 11.2 | 8.6 | 8.8 |
| 24 years old | 10.3 | 7.5 | 7.7 |
| 25 to 29 years old | 7.1 | 7.4 | 7.7 |
| 30 to 34 years old | 5.2 | 5.8 | 6.1 |
| 35 to 44 years old | 6.2 | 7.4 | 7.8 |

SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions Model.

(This table was prepared May 2002.)

**Table A1.2.—Equations for full-time and part-time college enrollment rates of men**

| Independent variable | Coefficient | Standard error | T-statistic | $R^2$ | F-statistic |
|---|---|---|---|---|---|
| **Full-time** | | | | | |
| Constant | -5.30 | 0.19 | -28.4 | 0.99 | 883.4 |
| Dummy18 | 2.62 | 0.12 | 21.1 | | |
| Dummy19 | 2.77 | 0.12 | 22.4 | | |
| Dummy20 | 2.60 | 0.14 | 19.1 | | |
| Dummy21 | 2.47 | 0.13 | 19.2 | | |
| Dummy22 | 2.03 | 0.17 | 12.2 | | |
| Dummy23 | 1.59 | 0.14 | 11.0 | | |
| Dummy24 | 1.28 | 0.16 | 7.8 | | |
| Dummy25-29 | 0.46 | 0.16 | 2.9 | | |
| Dummy30-34 | -0.54 | 0.14 | -4.0 | | |
| Dummy35-44 | -1.25 | 0.18 | -6.9 | | |
| LNURM | 0.07 | 0.03 | 2.0 | | |
| LNCPIMA | 0.35 | 0.03 | 12.5 | | |
| Rho17 | 0.51 | 0.19 | 2.7 | | |
| Rho18 | 0.62 | 0.16 | 3.8 | | |
| Rho19 | 0.35 | 0.19 | 1.9 | | |
| Rho20 | 0.46 | 0.18 | 2.5 | | |
| Rho21 | 0.38 | 0.18 | 2.1 | | |
| Rho22 | 0.63 | 0.16 | 3.9 | | |
| Rho23 | 0.41 | 0.19 | 2.2 | | |
| Rho24 | 0.72 | 0.14 | 5.1 | | |
| Rho25-29 | 0.64 | 0.13 | 5.1 | | |
| Rho30-34 | 0.37 | 0.13 | 2.9 | | |
| Rho35-44 | 0.70 | 0.12 | 6.1 | | |
| **Part-time** | | | | | |
| Constant | -6.41 | 0.20 | -32.0 | 0.92 | 127.7 |
| Dummy18 | 2.38 | 0.09 | 25.6 | | |
| Dummy19 | 2.76 | 0.24 | 11.3 | | |
| Dummy20 | 2.71 | 0.08 | 32.3 | | |
| Dummy21 | 2.61 | 0.10 | 25.7 | | |
| Dummy22 | 2.80 | 0.09 | 30.3 | | |
| Dummy23 | 2.46 | 0.09 | 26.2 | | |
| Dummy24 | 2.24 | 0.12 | 18.9 | | |
| Dummy25-29 | 2.20 | 0.11 | 19.8 | | |
| Dummy30-34 | 1.75 | 0.16 | 10.7 | | |
| Dummy35-44 | 1.69 | 0.09 | 18.2 | | |
| LNCPIMA | 0.25 | 0.03 | 7.5 | | |
| Rho17 | -0.27 | 0.20 | -1.4 | | |
| Rho18 | 0.01 | 0.22 | 0.0 | | |
| Rho19 | 0.85 | 0.13 | 6.6 | | |
| Rho20 | 0.29 | 0.20 | 1.5 | | |
| Rho21 | 0.56 | 0.17 | 3.3 | | |
| Rho22 | 0.23 | 0.20 | 1.2 | | |
| Rho23 | -0.05 | 0.20 | -0.2 | | |
| Rho24 | 0.44 | 0.23 | 1.9 | | |
| Rho25-29 | 0.70 | 0.12 | 6.0 | | |
| Rho30-34 | 0.82 | 0.10 | 8.5 | | |
| Rho35-44 | 0.62 | 0.10 | 5.9 | | |

$R^2$ = Coefficient of determination.

F-Statistic = Obtained statistic for the F value.

Where:

Dummy(age) = 1 for each age and 0 otherwise.

Rho(age) = Autocorrelation coefficient for each age.

LNURM = Log unemployment rate.

LNCPIMA = Log of four-period weighted average of per capita real disposable income.

NOTE: The regression method used to estimate the full-time and part-time equations was pooled least squares with first-order autocorrelation correction. The time period used to estimate the equations is from 1975 to 2000. The number of observations is 286. For additional information, see *The Modern Forecaster* by Hans Levenbach and James P. Cleary (Van Nostrand Reinhold Company Inc., New York, 1984, pp. 354-373).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions Model.

(This table was prepared May 2002.)

**Table A1.3.—Equations for full-time and part-time college enrollment rates of women**

| Independent variable | Coefficient | Standard error | T-statistic | $R^2$ | F-statistic |
|---|---|---|---|---|---|
| **Full-time** | | | | | |
| Constant | -8.37 | 0.48 | -17.5 | 0.99 | 1001 |
| Dummy18 | 2.96 | 0.45 | 6.5 | | |
| Dummy19 | 2.99 | 0.44 | 6.7 | | |
| Dummy20 | 2.73 | 0.45 | 6.1 | | |
| Dummy21 | 2.55 | 0.44 | 5.8 | | |
| Dummy22 | 1.81 | 0.44 | 4.1 | | |
| Dummy23 | 1.42 | 0.45 | 3.2 | | |
| Dummy24 | 1.13 | 0.43 | 2.6 | | |
| Dummy25-29 | 0.24 | 0.48 | 0.5 | | |
| Dummy30-34 | -0.44 | 0.45 | -1.0 | | |
| Dummy35-44 | -0.65 | 0.46 | -1.4 | | |
| LNURM | 0.07 | 0.06 | 1.1 | | |
| LNCPIMA | 0.92 | 0.04 | 21.5 | | |
| Rho17 | 0.90 | 0.10 | 9.4 | | |
| Rho18 | 0.64 | 0.15 | 4.3 | | |
| Rho19 | -0.40 | 0.19 | -2.1 | | |
| Rho20 | 0.04 | 0.20 | 0.2 | | |
| Rho21 | 0.43 | 0.18 | 2.3 | | |
| Rho22 | 0.76 | 0.12 | 6.3 | | |
| Rho23 | 0.74 | 0.13 | 5.9 | | |
| Rho24 | 0.68 | 0.14 | 4.8 | | |
| Rho25-29 | 0.70 | 0.15 | 4.5 | | |
| Rho30-34 | 0.17 | 0.20 | 0.8 | | |
| Rho35-44 | 0.13 | 0.21 | 0.7 | | |
| **Part-time** | | | | | |
| Constant | -7.72 | 0.49 | -15.9 | 0.78 | 40.6 |
| Dummy18 | 2.86 | 0.45 | 6.3 | | |
| Dummy19 | 3.01 | 0.50 | 6.0 | | |
| Dummy20 | 3.01 | 0.47 | 6.4 | | |
| Dummy21 | 2.93 | 0.51 | 5.7 | | |
| Dummy22 | 3.03 | 0.46 | 6.5 | | |
| Dummy23 | 2.74 | 0.47 | 5.9 | | |
| Dummy24 | 2.55 | 0.47 | 5.4 | | |
| Dummy25-29 | 2.46 | 0.45 | 5.4 | | |
| Dummy30-34 | 2.20 | 0.49 | 4.5 | | |
| Dummy35-44 | 2.46 | 0.46 | 5.4 | | |
| LNCPIMA | 0.47 | 0.03 | 14.6 | | |
| Rho17 | 0.38 | 0.19 | 2.0 | | |
| Rho18 | 0.33 | 0.22 | 1.5 | | |
| Rho19 | 0.75 | 0.15 | 5.0 | | |
| Rho20 | 0.27 | 0.20 | 1.4 | | |
| Rho21 | 0.69 | 0.17 | 4.0 | | |
| Rho22 | 0.30 | 0.21 | 1.5 | | |
| Rho23 | 0.48 | 0.20 | 2.4 | | |
| Rho24 | 0.61 | 0.19 | 3.2 | | |
| Rho25-29 | 0.42 | 0.18 | 2.3 | | |
| Rho30-34 | 0.82 | 0.12 | 7.0 | | |
| Rho35-44 | 0.75 | 0.15 | 4.9 | | |

$R^2$ = Coefficient of determination.

F-Statistic = Obtained statistic for the F value.

**Where:**

Dummy(age) = 1 for each age and 0 otherwise.
Rho(age) = Autocorrelation coefficient for each age.
LNURM = Log unemployment rate.
LNCPIMA = Log of four-period weighted average of per capita real disposable income.

NOTE: The regression method used to estimate the full-time and part-time equations was pooled least squares with first-order autocorrelation correction. The time period used to estimate the equations is from 1975 to 2000. The number of observations is 286. For additional information, see *The Modern Forecaster* by Hans Levenbach and James P. Cleary (Van Nostrand Reinhold Company Inc., New York, 1984, pp. 354-373).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions Model.

(This table was prepared May 2002.)

## Table A1.4.—Enrollment rates in public schools, by grade level: Fall 2000, 2007, and 2012

| Grade level | Population base age | 2000 | Projected | |
|---|---|---|---|---|
| | | | 2007 | 2012 |
| Kindergarten | 5 | 108.5 | 106.6 | 106.6 |
| Grade 1 | 6 | 93.5 | 93.4 | 93.4 |
| Elementary ungraded and special education | 5-13 | 1.0 | 1.2 | 1.2 |
| Secondary ungraded and special education | 14-17 | 1.1 | 1.3 | 1.3 |
| Postgraduate | 18 | 0.2 | 0.2 | 0.2 |

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Elementary and Secondary Enrollment Model.
(This table was prepared May 2002.)

## Table A1.5.—Public school grade progression rates: Fall 2000, 2007, and 2012

| Grade | 2000 | Projected | |
|---|---|---|---|
| | | 2007 | 2012 |
| 1 to 2 | 98.6 | 98.2 | 98.2 |
| 2 to 3 | 100.5 | 100.3 | 100.3 |
| 3 to 4 | 100.5 | 100.1 | 100.1 |
| 4 to 5 | 100.4 | 100.4 | 100.4 |
| 5 to 6 | 101.5 | 101.3 | 101.3 |
| 6 to 7 | 101.7 | 101.4 | 101.4 |
| 7 to 8 | 99.7 | 99.2 | 99.2 |
| 8 to 9 | 113.2 | 112.9 | 112.9 |
| 9 to 10 | 88.6 | 88.8 | 88.8 |
| 10 to 11 | 90.2 | 89.9 | 89.9 |
| 11 to 12 | 92.3 | 91.9 | 91.9 |

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Elementary and Secondary Enrollment Model.
(This table was prepared May 2002.)

**Table A1.6.—Full-time enrollment, by level enrolled and type of institution, as a percent of total enrollment, for each age and sex classification: Fall 2000, 2007, and 2012**

| Age | Men | | | Women | | |
|---|---|---|---|---|---|---|
| | 2000 | 2007 | 2012 | 2000 | 2007 | 2012 |
| **Undergraduate, 4-year institutions** | | | | | | |
| 16 to 17 years old | 38.1 | 53.0 | 53.0 | 68.8 | 67.7 | 67.7 |
| 18 to 19 years old | 61.8 | 64.1 | 64.1 | 70.4 | 68.8 | 68.8 |
| 20 to 21 years old | 78.2 | 77.4 | 77.4 | 74.7 | 76.8 | 76.8 |
| 22 to 24 years old | 66.7 | 64.9 | 64.9 | 56.6 | 59.2 | 59.2 |
| 25 to 29 years old | 49.1 | 46.4 | 46.4 | 43.2 | 46.0 | 46.0 |
| 30 to 34 years old | 39.7 | 38.4 | 38.4 | 50.2 | 43.6 | 43.6 |
| 35 years and over | 38.0 | 35.4 | 35.4 | 39.5 | 40.4 | 40.4 |
| **Undergraduate, 2-year institutions** | | | | | | |
| 16 to 17 years old | 57.8 | 44.6 | 44.6 | 30.2 | 31.5 | 31.5 |
| 18 to 19 years old | 37.0 | 35.0 | 35.0 | 29.2 | 30.5 | 30.5 |
| 20 to 21 years old | 18.4 | 20.2 | 20.2 | 23.9 | 21.3 | 21.3 |
| 22 to 24 years old | 16.1 | 16.3 | 16.3 | 18.0 | 17.8 | 17.8 |
| 25 to 29 years old | 15.6 | 16.2 | 16.2 | 21.3 | 20.9 | 20.9 |
| 30 to 34 years old | 10.6 | 14.3 | 14.3 | 20.7 | 30.1 | 30.1 |
| 35 years and over | 30.9 | 27.9 | 27.9 | 31.1 | 30.5 | 30.5 |
| **Postbaccalaureate, 4-year institutions** | | | | | | |
| 16 to 17 years old | 4.2 | 2.5 | 2.5 | 1.1 | 0.8 | 0.8 |
| 18 to 19 years old | 1.2 | 0.9 | 0.9 | 0.4 | 0.6 | 0.6 |
| 20 to 21 years old | 3.4 | 2.4 | 2.4 | 1.5 | 1.9 | 1.9 |
| 22 to 24 years old | 17.2 | 18.9 | 18.9 | 25.4 | 23.0 | 23.0 |
| 25 to 29 years old | 35.2 | 37.4 | 37.4 | 35.4 | 33.1 | 33.1 |
| 30 to 34 years old | 49.8 | 47.3 | 47.3 | 29.2 | 26.3 | 26.3 |
| 35 years and over | 31.0 | 36.7 | 36.7 | 29.4 | 29.0 | 29.0 |

NOTE: Projections shown for 2007and 2012 were adjusted to add to 100 percent before computing projections shown in tables 10 through 22.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions Model.
(This table was prepared May 2002.)

**Table A1.7.—Part-time enrollment, by level enrolled and type of institution, as a percent of total enrollment, for each age and sex classification: Fall 2000, 2007, and 2012**

| Age | Men | | | Women | | |
|---|---|---|---|---|---|---|
| | 2000 | 2007 | 2012 | 2000 | 2007 | 2012 |
| | | | Undergraduate, 4-year institutions | | | |
| 16 to 17 years old | 0.0 | 0.7 | 0.7 | 0.0 | 4.6 | 4.6 |
| 18 to 19 years old | 12.8 | 16.7 | 16.7 | 16.0 | 18.8 | 18.8 |
| 20 to 21 years old | 36.3 | 30.5 | 30.5 | 24.7 | 27.3 | 27.3 |
| 22 to 24 years old | 31.3 | 31.6 | 31.6 | 34.3 | 33.8 | 33.8 |
| 25 to 29 years old | 29.9 | 27.9 | 27.9 | 24.9 | 25.4 | 25.4 |
| 30 to 34 years old | 26.3 | 26.9 | 26.9 | 25.0 | 25.7 | 25.7 |
| 35 years and over | 16.0 | 20.5 | 20.5 | 20.1 | 20.9 | 20.9 |
| | | | Undergraduate, 2-year institutions | | | |
| 16 to 17 years old | 100.0 | 98.7 | 98.7 | 100.0 | 94.8 | 94.8 |
| 18 to 19 years old | 86.3 | 82.6 | 82.6 | 84.0 | 81.0 | 81.0 |
| 20 to 21 years old | 62.9 | 68.9 | 68.9 | 74.8 | 71.7 | 71.7 |
| 22 to 24 years old | 60.8 | 60.1 | 60.1 | 53.1 | 54.4 | 54.4 |
| 25 to 29 years old | 51.7 | 52.7 | 52.7 | 51.4 | 51.1 | 51.1 |
| 30 to 34 years old | 47.4 | 46.6 | 46.6 | 51.3 | 52.5 | 52.5 |
| 35 years and over | 56.2 | 52.7 | 52.7 | 57.5 | 55.8 | 55.8 |
| | | | Postbaccalaureate, 4-year institutions | | | |
| 16 to 17 years old | 0.0 | 0.7 | 0.7 | 0.0 | 0.6 | 0.6 |
| 18 to 19 years old | 0.8 | 0.7 | 0.7 | 0.0 | 0.2 | 0.2 |
| 20 to 21 years old | 0.7 | 0.6 | 0.6 | 0.5 | 1.0 | 1.0 |
| 22 to 24 years old | 7.9 | 8.3 | 8.3 | 12.6 | 11.7 | 11.7 |
| 25 to 29 years old | 18.5 | 19.4 | 19.4 | 23.7 | 23.5 | 23.5 |
| 30 to 34 years old | 26.3 | 26.5 | 26.5 | 23.7 | 21.8 | 21.8 |
| 35 years and over | 27.8 | 26.8 | 26.8 | 22.4 | 23.3 | 23.3 |

NOTE: Projections shown for 2007 and 2012 were adjusted to add to 100 percent before computing projections shown in tables 10 through 22.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions Model.
(This table was prepared May 2002.)

**Table A1.8.—Public college enrollment as a percent of total enrollment, by attendance status, sex, level enrolled, and type of institution: Fall 2000, 2007, and 2012**

| Enrollment category | Men | | | Women | | |
|---|---|---|---|---|---|---|
| | 2000 | 2007 | 2012 | 2000 | 2007 | 2012 |
| Full-time, undergraduate, 4-year institutions | 67.0 | 67.6 | 67.6 | 66.2 | 66.6 | 66.6 |
| Part-time, undergraduate, 4-year institutions | 71.0 | 71.4 | 71.4 | 68.6 | 68.2 | 68.2 |
| Full-time, undergraduate, 2-year institutions | 89.5 | 90.0 | 90.0 | 90.8 | 90.7 | 90.7 |
| Part-time, undergraduate, 2-year institutions | 99.1 | 98.9 | 98.9 | 99.0 | 98.8 | 98.8 |
| Full-time, postbaccalaureate, 4-year institutions | 52.2 | 53.0 | 53.0 | 53.5 | 54.6 | 54.6 |
| Part-time, postbaccalaureate, 4-year institutions | 56.5 | 57.0 | 57.0 | 61.8 | 62.4 | 62.4 |

SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions Model.
(This table was prepared May 2002.)

**Table A1.9.—Graduate enrollment as a percent of total postbaccalaureate enrollment, by sex, attendance status, and type and control of institution: Fall 2000, 2007, and 2012**

| Enrollment category | Men | | | Women | | |
|---|---|---|---|---|---|---|
| | 2000 | 2007 | 2012 | 2000 | 2007 | 2012 |
| Full-time, 4-year, public | 78.0 | 77.8 | 77.8 | 80.8 | 81.0 | 81.0 |
| Part-time, 4-year, public | 98.7 | 98.8 | 98.8 | 99.2 | 99.3 | 99.3 |
| Full-time, 4-year, private | 65.9 | 63.8 | 63.8 | 73.2 | 72.2 | 72.2 |
| Part-time, 4-year, private | 91.6 | 91.4 | 91.4 | 95.4 | 95.4 | 95.4 |

SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions Model.
(This table was prepared May 2002.)

**Table A1.10.—Full-time-equivalent of part-time enrollment as a percent of part-time enrollment, by level enrolled and by type and control of institution: Fall 2000, 2007, and 2012**

| Enrollment category | 2000 | 2007 | 2012 |
|---|---|---|---|
| Public, 4-year, undergraduate | 40.4 | 40.4 | 40.4 |
| Public, 2-year, undergraduate | 33.6 | 33.6 | 33.6 |
| Private, 4-year, undergraduate | 39.3 | 39.3 | 39.3 |
| Private, 2-year, undergraduate | 39.7 | 39.7 | 39.7 |
| Public, 4-year, graduate | 36.2 | 36.2 | 36.2 |
| Private, 4-year, graduate | 38.2 | 38.2 | 38.2 |
| Public, 4-year, first-professional | 60.0 | 60.1 | 60.1 |
| Private, 4-year, first-professional | 54.5 | 54.6 | 54.6 |

SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions Model.
(This table was prepared May 2002.)

**Table A1.11—Number of years, projection methods, and smoothing constants used to project public school enrollments and high school graduates, by state**

| Projected state variable | Number of years (1970-2000) | Projection method | Smoothing constant | Choice of smoothing constant |
|---|---|---|---|---|
| Grade progression rates | 31 | Single exponential smoothing | 0.4 | Empirical research |
| Graduates/grade 12 enrollment | 31 | Single exponential smoothing | 0.4 | Empirical research |

SOURCE: U.S. Department of Education, National Center for Education Statistics, State Public Elementary and Secondary Enrollment Model, and State Public High School Graduates Model. (This table was prepared May 2002.)

## Table A1.12.—Enrollment (assumptions)

| Variables | Assumptions | Alternatives | Tables |
|---|---|---|---|
| Elementary and Secondary enrollment | Age-specific enrollment rates will remain constant at levels consistent with the most recent rates. | Middle (no alternatives) | 1, 2 |
| | Public enrollment rates and public grade retention rates will remain constant at levels consistent with the most recent rates. | Middle (no alternatives) | 1, 2 |
| | The percentage of 7th and 8th grade public students enrolled in school organized as secondary schools will remain constant at levels consistent with the most recent rates. | Middle (no alternatives) | 1, 2 |
| College enrollment, by age | | | |
| Full-time | Age-specific enrollment rates by sex are a function of dummy variables by age, middle alternative log of four-period weighted average of real disposable income per capita, and middle alternative log unemployment rate by age group. | Middle | 10<br>14-19 |
| Part-time | Age-specific enrollment rates by sex are a function of dummy variables by age and the middle alternative log of four-period weighted average of real disposable income per capita. | Middle | 10<br>14-19 |
| College enrollment, by sex, attendance status, level enrolled, and type of institution | For each group and for each attendance status separately, percent of total enrollment by sex, level enrolled, and type of institution will follow past trends through 2012. For each age group and attendance status category, the sum of the percentages must equal 100 percent. | High, middle, and low | 10<br>14-19 |
| College enrollment, by control of institution | For each enrollment category, by sex, attendance status, and level enrolled, and by type of institution, public enrollment as a percent of total enrollment will remain constant at levels consistent with the most recent rates. | High, middle, and low | 10<br>14-19 |
| Graduate enrollment | For each enrollment category, by sex and attendance status of student, and by type and control of institution, graduate enrollment as a percent of postbaccalaureate enrollment will remain constant at levels consistent with the most recent rates. | High, middle, and low | 20 |
| Full-time-equivalent of part-time enrollment | For each enrollment category, by type and control of institution and level enrolled, the percent that full-time-equivalent of part-time enrollment is of part-time enrollment will remain constant at levels consistent with the most recent rates. | High, middle, and low | 22 |

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Elementary and Secondary Enrollment Model and Enrollment in Degree-Granting Institutions Model. (This table was prepared May 2002.)

# A2. High School Graduates

## National

Projections of public high school graduates were developed in the following manner. The number of public high school graduates was expressed as a percent of grade 12 enrollment in public schools for 1972 to 2000. This percent was projected using single exponential smoothing and applied to projections of grade 12 enrollment to yield projections of high school graduates in public schools. (This percent does not make any specific assumptions regarding the dropout rate. The effect of the 12th grade dropout proportion is reflected implicitly in the graduate proportion.) The grade 12 enrollment was projected based on grade progression rates. This percent was assumed to remain constant at levels consistent with the most recent rates. This method assumes that past trends in factors affecting graduation ratios, such as dropouts, migration, and public or private transfers, will continue over the projection period. In addition to student behaviors, the projected number of graduates could be impacted by changes in policies affecting graduation requirements.

The number of private high school graduates was expressed as a percent of grade 12 enrollment in private schools for 1989 to 1999. This percent was projected using single exponential smoothing and applied to projections of grade 12 enrollment to yield projections of high school graduates in private schools. (This percent does not make any specific assumptions regarding the dropout rate. The effect of the 12th grade dropout proportion is reflected implicitly in the graduate proportion.) The grade 12 enrollment was projected based on grade progression rates. This percent was assumed to remain constant at levels consistent with the most recent rates. This method assumes that past trends in factors affecting graduation ratios, such as dropouts, migration, and public or private transfers, will continue over the projection period. In addition to student behaviors, the projected number of graduates could be impacted by changes in policies affecting graduation requirements.

## Projection Accuracy

An analysis of projections from models used in the past 19 editions of *Projections of Education Statistics* indicates that the mean absolute percentage errors (MAPEs) for projections of public high school graduates were 0.7 percent for 1 year ahead, 0.9 percent for 2 years ahead, 1.6 percent for 5 years ahead, and 4.2 percent for 10 years ahead. For the 1-year-ahead prediction, this means that one would expect the projection to be within 0.7 percent of the actual value, on the average. For more information on the mean absolute percentage errors, see table A2, page 79.

## State Level

This edition contains projections of high school graduates from public schools by state from 2000–01 to 2011–12. Public school graduate data from the National Center for Education Statistics' Common Core of Data survey for 1969–70 to 1999–2000 were used to develop these projections. This survey does not collect graduate data for private schools.

Projections of public high school graduates by state were developed in the following manner. For each state, the number of public high school graduates was expressed as a percent of grade 12 enrollment in public schools for 1970 to 2000. This percent was projected using single exponential smoothing and applied to projections of grade 12 enrollment to yield projections of high school graduates in public schools. Projections of grade 12 enrollment were developed based on the grade progression rates discussed in section A1, Enrollment. This percent was assumed to remain constant at levels consistent with the most recent rates. This method assumes that past trends in factors affecting public high school graduates will continue over the projection period.

# A3. Earned Degrees Conferred

Projections of associate's, bachelor's, master's, doctor's, and first-professional degrees by sex were based on demographic models that relate degree awards to college-age populations and college enrollment by level enrolled and attendance status.

## Associate's Degrees

Associate's degree projections by sex were based on undergraduate enrollment by attendance status in 2-year institutions. Results of the regression analysis used to project associate's degrees by sex are shown in table A3.1.

## Bachelor's Degrees

Bachelor's degree projections by sex were based on the 18- to 24-year-old population and undergraduate enrollment by attendance status in 4-year institutions. Results of the regression analysis used to project bachelor's degrees by sex are shown in table A3.1.

## Master's Degrees

Master's degree projections by sex were based on full-time graduate enrollment by sex. Results of the regression analysis used to project master' degrees by sex are shown in table A3.1.

## Doctor's Degrees

Doctor's degree projections for men were based on full-time male graduate enrollment and the unemployment rate. Doctor's degree projections for women were based on the 35- to 44-year-old population of women and full-time female graduate enrollment. The results of the regression analysis used to project doctor's degrees by sex are shown in table A3.1.

## First-Professional Degrees

First-professional degree projections by sex were based on first-professional enrollment by attendance status in 4-year institutions. Results of the regression analysis used to project first-professional degrees by sex are shown in table A3.1.

## Methodological Tables

These tables describe equations used to calculate projections (table A3.1), and basic assumptions underlying projections (table A3.2).

## Projection Accuracy

An analysis of projection errors from similar models used in the past 6 editions *of Projections of Education Statistics* indicates that mean absolute percentage errors (MAPEs) for associate's degrees were 2.4 percent for 1 year out, 3.3 percent for 2 years out, and 6.6 percent for 5 years out. For the 1-year-out prediction, this means that one would expect the projection to be within 2.4 percent of the actual value, on average. MAPEs for bachelor's degree projections were 1.0 percent for 1 year out, 2.1 percent for 2 years out, and 4.1 percent for 5 years out. MAPEs for master's degrees were 1.2, 4.3, and 5.5, respectively. For doctor's degrees, the MAPEs were 2.6, 3.4, and 3.0 percent, respectively. For first-professional degrees, the MAPEs were 1.6, 1.6, and 5.9 percent, respectively. For more information on the mean absolute percentage errors, see table A2, page 79.

## Table A3.1.—Equations for earned degrees conferred

| Dependent Variable | Equation | $R^2$ | Durbin-Watson statistic[1] | Estimation technique[2] | Rho | Time period |
|---|---|---|---|---|---|---|
| Associate's degrees Men | ASSOCM = 107,075 + 54.9UGFT2M (1.5) + 39.2UGPT2M (2.4) | 0.83 | 1.6 | AR1 | 0.70 (4.3) | 1970-71 to 1999-2000 |
| Associate's degrees Women | ASSOCW = 85,571 + 185.3UGFT2W (6.2) | 0.99 | 1.4 | AR1 | 0.98 (36.6) | 1970-71 to 1999-2000 |
| Bachelor's degrees Men | BACHM = 239,629 - 11.0P1824M (-3.7) + 174.9UGFT4M (6.1) | 0.89 | 1.6 | AR1 | 0.61 (3.8) | 1970-71 to 1999-2000 |
| Bachelor's degrees Women | BACHW = 204,060 - 16.7P1824W (-3.1) + 246.1UGFT4W (17.5) | 0.99 | 1.1 | AR1 | 0.78 (5.8) | 1970-71 to 1999-2000 |
| Master's degrees Men | MASTM = 29,237 + 427.8GFTM (4.9) | 0.94 | 1.3 | AR1 | 0.90 (12.1) | 1970-71 to 1999-2000 |
| Master's degrees Women | MASTW = 35,951 + 548.2GFTW (14.0) | 0.99 | 1.1 | AR1 | 0.92 (14.5) | 1972-73 to 1999-2000 |
| Doctor's degrees Men | DOCM = 18,863 + 22.7GFTM1 (1.3) - 904.1RUC (-0.1) | 0.89 | 1.1 | AR1 | 0.96 (21.8) | 1970-71 to 1999-2000 |
| Doctor's degrees Women | DOCW = - 1,479 + 0.3P3544W (2.2) + 33.4GFTW (5.3) | 0.99 | 2.1 | AR1 | 0.70 (3.6) | 1972-73 to 1999-2000 |
| First-professional degrees Men | FPROM = 10,581 + 227.5FPFTM (7.1) | 0.88 | 1.9 | AR1 | 0.50 (2.6) | 1970-71 to 1999-2000 |
| First-professional degrees Women | FPROW = - 1,174 + 285.1FPFTW (23.1) + 221.5FPPTW (2.1) | 0.99 | 1.5 | OLS | | 1971-72 to 1999-2000 |

[1]For an explanation of the Durbin-Watson statistic, see J. Johnston, *Econometric Methods*, New York: McGraw-Hill, 1972, pages 251-252.

[2]AR1 indicates an estimation procedure for correcting the problem of first-order autocorrelation. OLS indicates Ordinary Least Squares. For a general discussion of the problem of autocorrelation, and the method used to forecast in the presence of autocorrelation, see G. Judge, W. Hill, R. Griffiths, H. Lutkepohl, and T. Lee, *The Theory and Practice of Econometrics*, New York: John Wiley and Sons, 1985, pages 315-318.

Where:

ASSOCM = Number of associate's degrees awarded to men
ASSOCW = Number of associate's degrees awarded to women
BACHM = Number of bachelor's degrees awarded to men
BACHW = Number of bachelor's degrees awarded to women
MASTM = Number of master's degrees awarded to men
MASTW = Number of master's degrees awarded to women
DOCM = Number of doctor's degrees awarded to men
DOCW = Number of doctor's degrees awarded to women
FPROM = Number of first-professional degrees awarded to men
FPROW = Number of first-professional degrees awarded to women
UGFT2M = Full-time male undergraduate enrollment in 2-year institutions, lagged 2 years, in thousands
UGPT2M = Part-time male undergraduate enrollment in 2-year institutions, lagged 2 years, in thousands
UGFT2W = Full-time female undergraduate enrollment in 2-year institutions, lagged 2 years, in thousands
P1824M = Population of 18- to 24-year-old men, in thousands
P1824W = Population of 18- to 24-year-old women, in thousands
UGFT4M = Full-time male undergraduate enrollment in 4-year institutions, lagged 2 years, in thousands
UGFT4W = Full-time female undergraduate enrollment in 4-year institutions, lagged 3 years, in thousands
GFTM = Full-time male graduate enrollment, in thousands
GFTW = Full-time female graduate enrollment, in thousands
P3544W = Population of 35- to 44-year-old women, in thousands
GFTM1 = Full-time male graduate enrollment lagged one year, in thousands
GFTW = Full-time female graduate enrollment, in thousands
RUC = Unemployment rate
FPFTM = Full-time male first-professional enrollment lagged 2 years, in thousands
FPFTW = Full-time female first-professional enrollment lagged 1 year, in thousands
FPPTW = Part-time female first-professional enrollment lagged 2 years, in thousands

NOTE: $R^2$ indicates the coefficient of determination. Numbers in parentheses are t-statistics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Earned Degrees Conferred Model.

(This table was prepared May 2002.)

## Table A3.2.—Earned degrees conferred (assumptions)

| Variables | Assumptions | Alternatives | Tables |
|---|---|---|---|
| Associate's degrees | | | |
| Men | The number of associate's degrees awarded to men is a linear function of full- and part-time male undergraduate enrollment in 2-year institutions lagged 2 years. This relationship will continue through 2011-12. | Middle | 26 |
| Women | The number of associate's degrees awarded to women is a linear function of full-time female undergraduate enrollment in 2-year institutions lagged 2 years. This relationship will continue through 2011-12. | Middle | 26 |
| Bachelor's degrees | | | |
| Men | The number of bachelor's degrees awarded to men is a linear function of full-time male undergraduate enrollment in 4-year institutions lagged 2 years and the male 18- to 24-year-old population. This relationship will continue through 2011-12. | Middle | 27 |
| Women | The number of bachelor's degrees awarded to women is a linear function of full-time female undergraduate enrollment in 4-year institutions lagged 3 years and the female 18- to 24-year-old population. This relationship will continue through 2011-12. | Middle | 27 |
| Master's degrees | | | |
| Men | The number of master's degrees awarded to men is a linear function of full-time male graduate enrollment. This relationship will continue through 2011-12. | Middle | 28 |
| Women | The number of master's degrees awarded to women is a linear function of full-time female graduate enrollment. This relationship will continue through 2011-12. | Middle | 28 |
| Doctor's degrees | | | |
| Men | The number of doctor's degrees awarded to men is a linear function of full-time male graduate enrollment lagged one year and the unemployment rate. This relationship will continue through 2011-12. | Middle | 29 |
| Women | The number of doctor's degrees awarded to women is a linear function of the 35- to 44-year-old population and full-time female graduate enrollment. This relationship will continue through 2011-12. | Middle | 29 |
| First-professional degrees | | | |
| Men | The number of first-professional degrees awarded to men is a linear function of full-time male first-professional enrollment lagged 2 years. This relationship will continue through 2011-12. | Middle | 30 |
| Women | The number of first-professional degrees awarded to women is a linear function of full-time female first-professional enrollment lagged 1 year and part-time female first-professional enrollment lagged 2 years. This relationship will continue through 2011-12. | Middle | 30 |

SOURCE: U.S. Department of Education, National Center for Education Statistics, Earned Degrees Conferred Model.
(This table was prepared May 2002.)

# Appendix B

# Supplementary Tables

**Table B1.—Annual number of births (U.S. Census projections, Middle Series): 1952 to 2012**

(In thousands)

| Calendar Year | Number of Births |
|---|---|
| 1952 | 3,933 |
| 1953 | 3,989 |
| 1954 | 4,102 |
| 1955 | 4,128 |
| 1956 | 4,244 |
| 1957 | 4,332 |
| 1958 | 4,279 |
| 1959 | 4,313 |
| 1960 | 4,307 |
| 1961 | 4,317 |
| 1962 | 4,213 |
| 1963 | 4,142 |
| 1964 | 4,070 |
| 1965 | 3,801 |
| 1966 | 3,642 |
| 1967 | 3,555 |
| 1968 | 3,535 |
| 1969 | 3,626 |
| 1970 | 3,739 |
| 1971 | 3,556 |
| 1972 | 3,258 |
| 1973 | 3,137 |
| 1974 | 3,160 |
| 1975 | 3,144 |
| 1976 | 3,168 |
| 1977 | 3,327 |
| 1978 | 3,333 |
| 1979 | 3,494 |
| 1980 | 3,612 |
| 1981 | 3,629 |
| 1982 | 3,681 |

**Table B1.—Annual number of births (U.S. Census projections, Middle Series): 1952 to 2012—Continued**

(In thousands)

| Calendar Year | Number of Births |
|---|---|
| 1983 | 3,639 |
| 1984 | 3,669 |
| 1985 | 3,761 |
| 1986 | 3,757 |
| 1987 | 3,809 |
| 1988 | 3,910 |
| 1989 | 4,041 |
| 1990 | 4,158 |
| 1991 | 4,111 |
| 1992 | 4,065 |
| 1993 | 4,000 |
| 1994 | 3,953 |
| 1995 | 3,900 |
| 1996 | 3,891 |
| 1997 | 3,881 |
| 1998 | 3,942 |
| 1999 | 3,959 |
| 2000 | 4,059 |
| **Projected** | |
| 2001 | 3,932 |
| 2002 | 3,953 |
| 2003 | 3,978 |
| 2004 | 4,009 |
| 2005 | 4,045 |
| 2006 | 4,086 |
| 2007 | 4,133 |
| 2008 | 4,183 |
| 2009 | 4,234 |
| 2010 | 4,283 |
| 2011 | 4,328 |
| 2012 | 4,370 |

NOTE: Some data have been revised from previously published figures

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-25, Nos. 1092, 1095, and "National Population Estimates for the 1990s," December 2001, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000; and U.S. Department of Health and Human Services, National Center for Health Statistics (NCHS) Annual Summary of Births, Marriages, Divorces, and Deaths: United States various years, *National Vital Statistics Reports;* and unpublished tabulations. (This table was prepared May 2002.)

**Table B2.—Preprimary school-age populations (U.S. Census projections, Middle Series): 1987 to 2012**

(In thousands)

| Year (July 1) | 3 years old | 4 years old | 5 years old | 3 to 5 years old |
|---|---|---|---|---|
| 1987 | 3,508 | 3,623 | 3,610 | 10,741 |
| 1988 | 3,619 | 3,556 | 3,627 | 10,802 |
| 1989 | 3,646 | 3,669 | 3,559 | 10,874 |
| 1990 | 3,658 | 3,697 | 3,679 | 11,034 |
| 1991 | 3,714 | 3,710 | 3,695 | 11,120 |
| 1992 | 3,808 | 3,769 | 3,710 | 11,287 |
| 1993 | 3,965 | 3,867 | 3,773 | 11,605 |
| 1994 | 3,990 | 4,024 | 3,868 | 11,882 |
| 1995 | 3,964 | 4,050 | 4,024 | 12,038 |
| 1996 | 3,888 | 4,023 | 4,050 | 11,961 |
| 1997 | 3,839 | 3,949 | 4,025 | 11,812 |
| 1998 | 3,799 | 3,897 | 3,950 | 11,647 |
| 1999 | 3,755 | 3,853 | 3,895 | 11,502 |
| 2000 | 3,761 | 3,808 | 3,851 | 11,420 |
| | | **Projected** | | |
| 2001 | 3,762 | 3,819 | 3,811 | 11,392 |
| 2002 | 3,765 | 3,818 | 3,820 | 11,403 |
| 2003 | 3,775 | 3,821 | 3,819 | 11,415 |
| 2004 | 3,789 | 3,830 | 3,821 | 11,440 |
| 2005 | 3,807 | 3,845 | 3,832 | 11,484 |
| 2006 | 3,827 | 3,862 | 3,845 | 11,535 |
| 2007 | 3,853 | 3,884 | 3,863 | 11,599 |
| 2008 | 3,883 | 3,909 | 3,884 | 11,677 |
| 2009 | 3,919 | 3,940 | 3,909 | 11,767 |
| 2010 | 3,960 | 3,976 | 3,939 | 11,874 |
| 2011 | 4,006 | 4,017 | 3,975 | 11,997 |
| 2012 | 4,053 | 4,063 | 4,016 | 12,133 |

NOTE: Some data have been revised from previously published figures. Because of rounding, details may not add to totals.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-25, Nos. 1092, 1095, and "National Population Estimates," December 2001, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000. (This table was prepared May 2002.)

**Table B3.—School-age populations (U.S. Census projections, Middle Series), ages 5, 6, 5 to 13, and 14 to 17 years: 1987 to 2012**

(In thousands)

| Year (July 1) | 5 years old | 6 years old | 5 to 13 years old | 14 to 17 years old |
|---|---|---|---|---|
| 1987 | 3,610 | 3,568 | 30,501 | 14,503 |
| 1988 | 3,627 | 3,611 | 31,030 | 14,023 |
| 1989 | 3,559 | 3,625 | 31,412 | 13,535 |
| 1990 | 3,679 | 3,561 | 32,002 | 13,322 |
| 1991 | 3,695 | 3,674 | 32,469 | 13,451 |
| 1992 | 3,710 | 3,694 | 32,943 | 13,702 |
| 1993 | 3,773 | 3,712 | 33,382 | 13,990 |
| 1994 | 3,868 | 3,771 | 33,712 | 14,491 |
| 1995 | 4,024 | 3,865 | 34,196 | 14,827 |
| 1996 | 4,050 | 4,020 | 34,604 | 15,212 |
| 1997 | 4,025 | 4,048 | 35,004 | 15,500 |
| 1998 | 3,950 | 4,022 | 35,397 | 15,519 |
| 1999 | 3,895 | 3,944 | 35,605 | 15,653 |
| 2000 | 3,851 | 3,889 | 35,751 | 15,725 |
| | | **Projected** | | |
| 2001 | 3,811 | 3,851 | 35,885 | 15,821 |
| 2002 | 3,820 | 3,809 | 35,941 | 16,047 |
| 2003 | 3,819 | 3,818 | 35,904 | 16,247 |
| 2004 | 3,821 | 3,817 | 35,697 | 16,580 |
| 2005 | 3,832 | 3,819 | 35,473 | 16,931 |
| 2006 | 3,845 | 3,828 | 35,281 | 17,188 |
| 2007 | 3,863 | 3,841 | 35,186 | 17,268 |
| 2008 | 3,884 | 3,858 | 35,164 | 17,132 |
| 2009 | 3,909 | 3,879 | 35,207 | 16,915 |
| 2010 | 3,939 | 3,904 | 35,322 | 16,681 |
| 2011 | 3,975 | 3,933 | 35,463 | 16,536 |
| 2012 | 4,016 | 3,970 | 35,656 | 16,443 |

NOTE: Some data have been revised from previously published figures.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-25, Nos. 1092, 1095, and "National Population Estimates," December 2001, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000. (This table was prepared May 2002.)

**Table B4.—College-age populations (U.S. Census projections, Middle Series), ages 18, 18 to 24, 25 to 29, 30 to 34, and 35 to 44 years: 1987 to 2012**

(In thousands)

| Year (July 1) | 18 years old | 18 to 24 years old | 25 to 29 years old | 30 to 34 years old | 35 to 44 years old |
|---|---|---|---|---|---|
| 1987 | 3,704 | 27,931 | 21,982 | 21,058 | 34,299 |
| 1988 | 3,803 | 27,584 | 21,869 | 21,470 | 35,258 |
| 1989 | 3,888 | 27,378 | 21,690 | 21,759 | 36,494 |
| 1990 | 3,599 | 26,835 | 21,236 | 21,913 | 37,776 |
| 1991 | 3,391 | 26,352 | 20,713 | 22,157 | 39,291 |
| 1992 | 3,328 | 25,975 | 20,140 | 22,240 | 39,906 |
| 1993 | 3,419 | 25,740 | 19,570 | 22,227 | 40,814 |
| 1994 | 3,381 | 25,396 | 19,107 | 22,133 | 41,693 |
| 1995 | 3,541 | 25,113 | 18,905 | 21,826 | 42,555 |
| 1996 | 3,578 | 24,844 | 18,932 | 21,313 | 43,365 |
| 1997 | 3,693 | 24,980 | 18,820 | 20,739 | 44,014 |
| 1998 | 3,879 | 25,474 | 18,576 | 20,168 | 44,499 |
| 1999 | 3,875 | 26,011 | 18,209 | 19,727 | 44,812 |
| 2000 | 3,961 | 26,542 | 17,816 | 19,547 | 44,865 |
| **Projected** | | | | | |
| 2001 | 3,971 | 27,282 | 17,482 | 19,683 | 44,746 |
| 2002 | 3,901 | 27,643 | 17,444 | 19,580 | 44,277 |
| 2003 | 4,022 | 28,077 | 17,622 | 19,360 | 43,718 |
| 2004 | 4,042 | 28,416 | 17,974 | 19,011 | 43,221 |
| 2005 | 4,058 | 28,593 | 18,409 | 18,627 | 42,769 |
| 2006 | 4,117 | 28,817 | 18,875 | 18,175 | 42,337 |
| 2007 | 4,211 | 29,054 | 19,265 | 18,124 | 41,652 |
| 2008 | 4,369 | 29,441 | 19,618 | 18,292 | 40,859 |
| 2009 | 4,395 | 29,926 | 19,801 | 18,625 | 40,065 |
| 2010 | 4,363 | 30,256 | 19,907 | 19,046 | 39,495 |
| 2011 | 4,280 | 30,478 | 20,040 | 19,497 | 39,088 |
| 2012 | 4,223 | 30,625 | 20,107 | 19,880 | 38,911 |

NOTE: Some data have been revised from previously published figures.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-25, Nos. 1092, 1095, and "National Population Estimates," December 2001, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000. (This table was prepared May 2002.)

**Table B5.—Disposable income per capita, with alternative projections: Fiscal year 1986–87 to 2011–12**

| Year ending | Disposable income per capita[1] |
|---|---|
| 1987 | $20,430 |
| 1988 | 20,989 |
| 1989 | 21,581 |
| 1990 | 21,831 |
| 1991 | 21,821 |
| 1992 | 21,964 |
| 1993 | 22,234 |
| 1994 | 22,416 |
| 1995 | 22,886 |
| 1996 | 23,154 |
| 1997 | 23,587 |
| 1998 | 24,388 |
| 1999 | 25,153 |
| 2000 | 25,568 |
| **Middle alternative projections** | |
| 2001 | 25,694 |
| 2002 | 26,916 |
| 2003 | 27,286 |
| 2004 | 28,028 |
| 2005 | 28,636 |
| 2006 | 29,096 |
| 2007 | 29,462 |
| 2008 | 29,998 |
| 2009 | 30,680 |
| 2010 | 31,411 |
| 2011 | 32,193 |
| 2012 | 33,003 |
| **Low alternative projections** | |
| 2001 | 25,694 |
| 2002 | 26,906 |
| 2003 | 27,126 |
| 2004 | 27,769 |
| 2005 | 28,323 |
| 2006 | 28,638 |
| 2007 | 28,899 |
| 2008 | 29,371 |
| 2009 | 29,864 |
| 2010 | 30,440 |
| 2011 | 31,148 |
| 2012 | 31,828 |
| **High alternative projections** | |
| 2001 | 25,694 |
| 2002 | 26,935 |
| 2003 | 27,472 |
| 2004 | 28,370 |
| 2005 | 29,172 |
| 2006 | 29,858 |
| 2007 | 30,462 |
| 2008 | 31,275 |
| 2009 | 32,282 |
| 2010 | 33,355 |
| 2011 | 34,451 |
| 2012 | 35,449 |

[1] In 2000–01 dollars based on the price deflator for personal consumption expenditures, Bureau of Labor Statistics, U.S. Department of Labor.

NOTE: Calculations were made using unrounded numbers. Some data have been revised from previously published figures.

SOURCE: DRI•WEFA, "U.S. Quarterly Model." (This table was prepared May 2002.)

# Appendix C

# Data Sources

## Sources and Comparability of Data

The information in this report was obtained from many sources, including federal and state agencies, private research organizations, and professional associations. The data were collected by many methods, including surveys of a universe (such as all colleges) or of a sample, and compilations of administrative records. Care should be used when comparing data from different sources. Differences in procedures, such as timing, phrasing of questions, and interviewer training, mean that the results from the different sources are not strictly comparable. More extensive documentation of one survey's procedures than of another's does not imply more problems with the data, only that more information is available.

## Accuracy of Data

The accuracy of any statistic is determined by the joint effects of "sampling" and "nonsampling" errors. Estimates based on a sample will differ from the figures that would have been obtained if a complete census had been taken using the same survey instruments, instructions, and procedures. Besides sampling errors, both surveys, universe and sample, are subject to errors of design, reporting, processing, and errors due to nonresponse. To the extent possible, these nonsampling errors are kept to a minimum by methods built into the survey procedures. In general, however, the effects of nonsampling errors are more difficult to gauge than those produced by sampling variability.

### Sampling Errors

The standard error is the primary measure of sampling variability. It provides a specific range—with a stated confidence—within which a given estimate would lie if a complete census had been conducted. The chances that a complete census would differ from the sample by less than the standard error are about 68 out of 100. The chances that the difference would be less than 1.65 times the standard error are about 90 out of 100. The chances that the difference would be less than 1.96 times the standard error are about 95 out of 100. The chances that it would be less than 2.58 times as large are about 99 out of 100.

The standard error can help assess how valid a comparison between two estimates might be. The standard error of a difference between two sample estimates that are uncorrelated is approximately equal to the square root of the sum of the squared standard errors of the estimates. The standard error (se) of the difference between sample estimate "a" and sample estimate "b" is:

$$se_{a-b} = (se_a^2 + se_b^2)^{1/2}$$

Note that most of the standard errors in subsequent sections and in the original documents are approximations. That is, to derive estimates of standard errors that would be applicable to a wide variety of items and could be prepared at a moderate cost, a number of approximations were required. As a result, most of the standard errors presented provide a general order of magnitude rather than the exact standard error for any specific item.

### Nonsampling Errors

Both universe and sample surveys are subject to nonsampling errors. Nonsampling errors are of two kinds—random and nonrandom. Random nonsampling errors may arise when respondents or interviewers interpret questions differently, when respondents must estimate values, or when coders, keyers, and other processors handle answers differently. Nonrandom nonsampling errors result from total nonresponse (no usable data obtained for a sampled unit), partial or item nonresponse (only a portion of a response may be usable), inability or unwillingness on the part of respondents to provide information, difficulty interpreting questions, mistakes in recording or keying data, errors of collection or processing, and overcoverage or undercoverage of the target universe. Random nonresponse errors usually, but not always, result in an understatement of sampling errors and thus an overstatement of the precision of survey estimates. Because estimating the magnitude of nonsampling errors would require special experiments or access to independent data, these magnitudes are seldom available.

To compensate for suspected nonrandom errors, adjustments of the sample estimates are often made. For example, adjustments are frequently made for

nonresponse, both total and partial. Imputations are usually made separately within various groups of sample members that have similar survey characteristics. Imputation for item nonresponse is an acceptable value which is substituted for missing or inconsistent data in a data set.

Although the magnitude of nonsampling errors in the data used in this *Projections of Education Statistics* is frequently unknown, idiosyncrasies that have been identified are noted on the appropriate tables.

## Federal Agency Sources

### National Center for Education Statistics (NCES)

#### Common Core of Data

NCES uses the Common Core of Data (CCD) survey to acquire and maintain statistical data from each of the 50 states, the District of Columbia, the Bureau of Indian Affairs, Department of Defense Dependents' Schools (overseas) and the outlying areas. Information about staff and students is collected annually at the school, local education agency or school district (LEA), and state levels. Information about revenues and expenditures is also collected at the state and LEA levels.

Data are collected for a particular school year (October 1 through September 30) via survey instruments sent to the state education agencies during the school year. States have 1 year in which to modify the data originally submitted.

Since the CCD is a universe survey, the CCD information presented in this edition of the *Projections of Education Statistics* is not subject to sampling errors. However, nonsampling errors could come from two sources—nonreturn and inaccurate reporting. Almost all of the states submit the six CCD survey instruments each year, but submissions are sometimes incomplete or too late for publication.

Understandably, when 58 education agencies compile and submit data for approximately 90,000 public schools and 16,000 local school districts, misreporting can occur. Typically, this results from varying interpretations of NCES definitions and differing recordkeeping systems. NCES attempts to minimize these errors by working closely with the state education agencies through the National Forum on Education Statistics.

The state education agencies report data to NCES from data collected and edited in their regular reporting cycles. NCES encourages the agencies to incorporate into their own survey systems the NCES items they do not already collect so that those items will also be available for the subsequent CCD survey. Over time, this has meant fewer missing data cells in each state's response, reducing the need to impute data.

NCES subjects data from the education agencies to a comprehensive edit. Where data are determined to be inconsistent, missing, or out of range, NCES contacts the education agencies for verification. NCES-prepared state summary forms are returned to the state education agencies for verification. States are also given an opportunity to revise their state-level aggregates from the previous survey cycle.

Further information on CCD may be obtained from:

John Sietsema
Elementary/Secondary and Library Studies Division
National Center for Education Statistics
1990 K Street NW
Washington, DC 20006
John.Sietsema@ed.gov
http://nces.ed.gov/ccd/

#### Private School Universe Survey

The purposes of Private School Survey (PSS) data collection activities are to build an accurate and complete list of private schools to serve as a sampling frame for NCES sample surveys of private schools; and to report data on the total number of private schools, teachers, and students in the survey universe. The PSS is conducted every 2 years, with collections in 1989–90, 1991–92, 1993–94, 1995–96, 1997–98, and 1999–2000 school years. The next survey will be in the 2001–02 school year.

The PSS produces data similar to that of the CCD for the public schools, and can be used for public-private comparisons. The data are useful for a variety of policy and research-relevant issues, such as the growth of religiously affiliated schools, the number of private high school graduates, the length of the school year for various private schools, and the number of private school students and teachers.

The target population for the universe survey consists of all private schools in the United States that meet NCES criteria of a school (e.g., private school is an institution which provides instruction for any of grades K through 12, has one or more teachers to give instruction, is not administered by a public agency, and is not operated in a private home). The survey universe is composed of schools identified from a variety of sources. The main source is a list frame, initially developed for the 1989–90 PSS. The list is updated regularly, matching it with lists

provided by nationwide private school associations, state departments of education, and other national guides and sources that list private schools. The other source is an area frame search in approximately 120 geographic areas, conducted by the Bureau of the Census.

Further information on PSS may be obtained from:

Steve Broughman
Elementary/Secondary and Libraries Studies Division
National Center for Education Statistics
1990 K Street NW
Washington, DC 20006
Stephen.Broughman@ed.gov
http://nces.ed.gov/surveys/pss/

**Integrated Postsecondary Education Data System**

The Integrated Postsecondary Education Data System (IPEDS) surveys approximately 10,000 postsecondary institutions, including universities and colleges, as well as institutions offering technical and vocational education beyond the high school level. This survey, which began in 1986, replaced the Higher Education General Information Survey (HEGIS).

IPEDS consists of several integrated components that obtain information on who provides postsecondary education (institutions), who participates in it and completes it (students), what programs are offered and what programs are completed, and both the human and financial resources involved in the provision of institutionally based postsecondary education. Specifically, these components include: Institutional Characteristics, including instructional activity; Fall Enrollment, including age and residence; Completions; Finance; Staff; Salaries of Full-Time Instructional Faculty; and Graduation Rate.

The degree-granting institutions portion of this survey is a census of colleges awarding associate's or higher degrees and that were eligible to participate in Title IV financial aid programs. Prior to 1993, data from the technical and vocational institutions were collected through a sample survey. Beginning in 1993, all data are gathered in a census of all postsecondary institutions. The tabulations on "Institutional Characteristics" developed for this edition of the *Projections of Education Statistics* are based on lists of all institutions and are not subject to sampling errors.

The definition of institutions generally thought of as offering college and university education has been changed in recent years. The old standard for higher education institutions included those institutions that had courses that led to an associate degree or higher, or were accepted for credit towards those degrees. The higher education institutions were accredited by an agency or association that was recognized by the U.S. Department of Education or recognized directly by the Secretary of Education. The current category includes institutions which award associate or higher level degrees that are eligible to participate in Title IV federal financial aid programs. Tables that contain any data according to this standard are titled as "degree-granting" institutions. The impact of this change has generally not been large. For example, tables on faculty salaries and benefits were only affected to a very small extent. Also, degrees awarded at the bachelor's level or higher were not heavily affected. Most of the data on public 4-year colleges has been affected only to a minimal extent. The impact on enrollment in public 2-year colleges was noticeable in certain states, but relatively small at the national level. The largest impact has been on private 2-year college enrollment. Overall, enrollment for all institutions was about one-half of a percent higher for degree-granting institutions compared to the total for higher education institutions.

Prior to the establishment of IPEDS in 1986, HEGIS acquired and maintained statistical data on the characteristics and operations of institutions of higher education. Implemented in 1966, HEGIS was an annual universe survey of institutions accredited at the college level by an agency recognized by the Secretary of the U.S. Department of Education. These institutions were listed in NCES' *Education Directory, Colleges and Universities*.

HEGIS surveys solicited information concerning institutional characteristics, faculty salaries, finances, enrollment, and degrees. Since these surveys were distributed to all higher education institutions, the data presented are not subject to sampling error. However, they are subject to nonsampling error, the sources of which varied with the survey instrument. Information concerning the nonsampling error of the enrollment and degrees surveys draws extensively on the *HEGIS Post-Survey Validation Study* conducted in 1979.

Further information on IPEDS may be obtained from:

Susan Broyles
Postsecondary Studies Division
National Center for Education Statistics
1990 K Street NW
Washington, DC 20006
Susan.Broyles@ed.gov
http://nces.ed.gov/ipeds/

***Institutional Characteristics*** This survey provides the basis for the universe of institutions presented in the *Directory of Postsecondary Institutions*. The survey collects basic information necessary to classify the institutions, including control, level, and kinds of programs; information on tuition, fees, and room and board charges; and unduplicated full-year enrollment counts and instructional activity. The overall response rate was 96.6 percent for 1998.

Further information may be obtained from:

Patricia Brown
Postsecondary Studies Division
National Center for Education Statistics
1990 K Street NW
Washington, DC 20006
Patricia_Brown@ed.gov
http://nces.ed.gov/ipeds/

***Fall Enrollment*** This survey has been part of the HEGIS and IPEDS series since 1966. The enrollment survey response rate is relatively high. The 1998 overall response rate was 91.8 percent for degree-granting institutions. Major sources of nonsampling error for this survey, as identified in the 1979 report, were classification problems, the unavailability of needed data, interpretation of definitions, the survey due date, and operational errors. Of these, the classification of students appears to have been the main source of error. Institutions had problems in correctly classifying first-time freshmen and other first-time students for both full-time and part-time categories. These problems occurred most often at 2-year institutions (private and public) and private 4-year institutions. In the 1977–78 HEGIS validation studies, the classification problem led to an estimated overcount of 11,000 full-time students and an undercount of 19,000 part-time students. Although the ratio of error to the grand total was quite small (less than 1 percent), the percentage of errors was as high as 5 percent for detailed student levels and even higher at certain aggregation levels.

Beginning in fall 1986, the survey system was redesigned with the introduction of IPEDS (see above). The survey allows (in alternating years) for the collection of age and residence data.

Further information may be obtained from:

Frank Morgan
Postsecondary Studies Division
National Center for Education Statistics
1990 K Street NW
Washington, DC 20006
Frank_Morgan@ed.gov
http://nces.ed.gov/ipeds/

***Completions*** This survey was part of the HEGIS series throughout its existence. However, the degree classification taxonomy was revised in 1970–71, 1982–83, and 1991–92. Collection of degree data has been maintained through the IPEDS system.

Though information from survey years 1970–71 through 1981–82 is directly comparable, care must be taken if information before or after that period is included in any comparison. The "Degrees-conferred" trend tables arranged by the 1991–92 classification are included in the *Projections of Education Statistics* to provide consistent data from 1970–71 to the most recent year. Data in this edition on associate's and other formal awards below the baccalaureate level, by field of study, cannot be made comparable with figures prior to 1982–83. The nonresponse rate did not appear to be a significant source of nonsampling error for this survey. Historically, the return rate has been high, with the degree-granting institutions response rate for the 1999–2000 survey at 96.7 percent. Because of the high return rate for degree-granting institutions, nonsampling error caused by imputation is also minimal. The overall response rate that includes the non-degree granting institutions was 84.4 percent in 1999–2000.

The major sources of nonsampling error for this survey were differences between the NCES program taxonomy and taxonomies used by the colleges, classification of double majors, operational problems, and survey timing. In the 1979 HEGIS validation study, these sources of nonsampling error contributed to an error rate of 0.3 percent overreporting of bachelor's degrees and 1.3 percent overreporting of master's degrees. The differences, however, varied greatly among fields. Over 50 percent of the fields selected for the validation study had no errors identified. Categories of fields that had large differences were business and management, education, engineering, letters, and psychology. It was also shown that differences in proportion to the published figures were less than 1 percent for most of the selected fields that had some errors. Exceptions to these were: master's and Ph.D. programs in labor and industrial relations (20 percent and 8 percent); bachelor's and master's programs in art education (3 percent and 4 percent); bachelor's and Ph.D. programs in business and commerce, and in distributive education (5 percent and 9 percent); master's programs in philosophy (8 percent); and Ph.D. programs in psychology (11 percent).

Further information on IPEDS Completions

surveys may be obtained from:

Frank Morgan
Postsecondary Studies Division
National Center for Education Statistics
1990 K Street NW
Washington, DC 20006
Frank_Morgan@ed.gov
http://nces.ed.gov/ipeds/

## Bureau of the Census

### Current Population Survey

Current estimates of school enrollment rates, as well as social and economic characteristics of students, are based on data collected in the Census Bureau's monthly household survey of about 50,000 dwelling units. The monthly Current Population Survey (CPS) sample consists of 729 areas comprising 1,973 counties, independent cities, and minor civil divisions throughout the 50 states and the District of Columbia. The samples are initially selected based on the decennial census files and are periodically updated to reflect new housing construction.

The monthly CPS deals primarily with labor force data for the civilian noninstitutional population (i.e., excluding military personnel and their families living on post and inmates of institutions). In addition, in October of each year, supplemental questions are asked about highest grade completed, level and grade of current enrollment, attendance status, number and type of courses, degree or certificate objective, and type of organization offering instruction for each member of the household. In March of each year, supplemental questions on income are asked. The responses to these questions are combined with answers to two questions on educational attainment: highest grade of school ever attended, and whether that grade was completed.

The estimation procedure employed for monthly CPS data involves inflating weighted sample results to independent estimates of characteristics of the civilian noninstitutional population in the United States by age, sex, and race. These independent estimates are based on statistics from decennial censuses; statistics on births, deaths, immigration, and emigration; and statistics on the population in the armed services. Generalized standard error tables are provided in the *Current Population Reports*. The data are subject to both nonsampling and sampling errors.

Further information on CPS may be obtained from:

Education and Social Stratification Branch
Population Division
Bureau of the Census
U.S. Department of Commerce
Washington, DC 20233
http://www.bls.census.gov/cps/cpsmain.htm

***School Enrollment*** Each October, the Current Population Survey (CPS) includes supplemental questions on the enrollment status of the population 3 years old and over, in addition to the monthly basic survey on labor force participation. The main sources of nonsampling variability in the responses to the supplement are those inherent in the survey instrument. The question of current enrollment may not be answered accurately for various reasons. Some respondents may not know current grade information for every student in the household, a problem especially for households with members in college or in nursery school. Confusion over college credits or hours taken by a student may make it difficult to determine the year in which the student is enrolled. Problems may occur with the definition of nursery school (a group or class organized to provide educational experiences for children), where respondents' interpretations of "educational experiences" vary.

The 2000 CPS sample was selected from the 1990 Decennial Census files with coverage in all 50 states and the District of Columbia. The sample is continually updated to account for new residential construction. The United States was divided into 2,007 geographic areas. In most states, a geographic area consists of a county or several contiguous counties. In some areas of New England and Hawaii, minor civil divisions are used instead of counties. A total of 754 geographic areas were selected for the sample. About 50,000 occupied households are eligible for interview every month. Interviewers are unable to obtain interviews at about 3,200 of these units. This occurs when the occupants are not found at home after repeated calls or are unavailable for some other reason. For the October 2000 basic CPS, the nonresponse rate was 6.8 percent. For the school enrollment supplement, the nonresponse rate was an additional 3.1 percent for a total school supplement nonresponse rate of 9.7 percent.

Further information on CPS "School Enrollment" may be obtained from:

Education and Social Stratification Branch
Bureau of the Census
U.S. Department of Commerce

Washington, DC 20233
http://www.census.gov/population/www/socdemo/school.html

**State population projections.** These state population projections were prepared using a cohort-component method by which each component of population change—births, deaths, state-to-state migration flows, international in-migration, and international out-migration—was projected separately for each birth cohort by sex, race, and Hispanic origin. The basic framework was the same as in past Census Bureau projections.

Detailed components necessary to create the projections were obtained from vital statistics, administrative records, census data, and national projections.

The cohort-component method is based on the traditional demographic accounting system:

$$P_1 = P_0 + B - D + DIM - DOM + IIM - IOM$$

**where:**

$P_1$ = population at the end of the period

$P_0$ = population at the beginning of the period

B = births during the period

D = deaths during the period

DIM = domestic in-migration during the period

DOM = domestic out-migration during the period

IIM = international in-migration during the period

IOM = international out-migration during the period

To generate population projections with this model, the Census Bureau created separate data sets for each of these components. In general, the assumptions concerning the future levels of fertility, mortality, and international migration are consistent with the assumptions developed for the national population projections of the Census Bureau.

Once the data for each component were developed, it was a relatively straightforward process to apply the cohort-component method and produce the projections. For each projection year the base population for each state was disaggregated into eight race and Hispanic categories (non-Hispanic White; non-Hispanic Black; non-Hispanic American Indian, Eskimo, and Aleut; non-Hispanic Asian and Pacific Islander; Hispanic white; Hispanic black; Hispanic American Indian, Eskimo, and Aleut; and Hispanic Asian and Pacific Islander), by sex, and single year of age (ages 0 to 85+). The next step was to survive each age-sex-race-ethnic group forward 1 year using the pertinent survival rate. The internal redistribution of the population was accomplished by applying the appropriate state-to-state migration rates to the survived population in each state. The projected out-migrants were subtracted from the state of origin and added to the state of destination (as in-migrants). Next, the appropriate number of immigrants from abroad was added to each group. The population under age 1 was created by applying the appropriate age-race-ethnic-specific birth rates to females of childbearing age. The number of births by sex and race/ethnicity were survived forward and exposed to the appropriate migration rate to yield the population under age 1. The final results of the projection process were adjusted to be consistent with the national population projections by single years of age, sex, race, and Hispanic origin. The entire process was then repeated for each year of the projection.

More information is available in the Census Bureau Population Paper Listing 47 (PPL-47) and Current Population Report P25-1130. These reports may be obtained from:

Statistical Information Staff
Bureau of the Census
U.S. Department of Commerce
Washington, DC 20233
(301) 763-3030
http://www.census.gov

**National population projections.** The method used to produce projections of the United States population for future reference dates from a current base population reflects three fundamental principles. First, the projections are demographic. Future populations are derived from a base population through the projection of population change by its major demographic components, births, deaths, and migration. Second, the projection of the demographic components of change is driven by the composition of the population by age, sex, race, Hispanic origin, and nativity, and the way these variables determine the propensity to bear children, die, migrate to or from the United States. Third, the definition of the population with respect to who is included and the characteristics of included people remains the same throughout the projection period. We refer to these definitions collectively throughout the work as the "population universe." This concept embraces such issues as the inclusion or exclusion of people uncounted by a census, the rule defining residency in the United States, and the way we classify people by age,

race, and Hispanic origin.

For more information, see "Methodology and Assumptions for the Population Projections of the United States: 1999 to 2100," Population Division Working Paper No. 38. This report is available on the Internet at http://www.census.gov.

## Other Sources

### DRI•WEFA, Inc.

DRI•WEFA Inc. provides an information system that includes more than 125 databases: simulation and planning models; regular publications and special studies; data retrieval and management systems; and access to experts on economic, financial, industrial, and market activities. One service is the DRI U.S. Annual Model Forecast Data Bank, which contains annual projections of the U.S. economic and financial conditions, including forecasts for the federal government, incomes, population, prices and wages, and state and local governments, over a long-term (10 to 25-year) forecast period.

Additional information is available from:

DRI•WEFA, Inc.
24 Hartwell Avenue
Lexington, MA 02421-3158

# Appendix D

# Glossary

## Data Terms

**Associate's degree:** A degree granted for the successful completion of a subbaccalaureate program of studies, usually requiring at least 2 years (or the equivalent) of full-time college-level study. This term includes degrees granted in a cooperative or work-study program.

**Average daily attendance (ADA):** The aggregate attendance of a school during a reporting period (normally a school year) divided by the number of days school is in session during this period. Only days on which the pupils are under the guidance and direction of teachers should be considered days in session.

**Average daily membership (ADM):** The aggregate membership of a school during a reporting period (normally a school year) divided by the number of days school is in session during this period. Only days on which the pupils are under the guidance and direction of teachers should be considered as days in session. The average daily membership for groups of schools having varying lengths of terms is the average of the average daily memberships obtained for the individual schools.

**Bachelor's degree:** A degree granted for the successful completion of a baccalaureate program of studies, usually requiring at least 4 years (or the equivalent) of full-time college-level study. This term includes degrees granted in a cooperative or work-study program.

**Cohort:** A group of individuals that have a statistical factor in common, for example, year of birth.

**College:** A postsecondary school that offers a general or liberal arts education, usually leading to an associate, bachelor's, master's, doctor's, or first-professional degree. Junior colleges and community colleges are included in this term.

**Current Population Survey:** See Appendix C, Data Sources.

**Degree-granting institutions:** Postsecondary institutions that are eligible for Title IV federal financial aid programs and that grant an associate's or higher degree. For an institution to be eligible to participate in Title IV financial aid programs it must offer a program of at least 300 clock hours in length, have accreditation recognized by the U.S. Department of Education, have been in business for at least 2 years, and have signed a participation agreement with the Department.

**Disposable income:** Current income received by persons less their contributions for social insurance, personal tax, and nontax payments. It is the income available to persons for spending and saving. Nontax payments include passport fees, fines and penalties, donations, and tuitions and fees paid to schools and hospitals operated mainly by the government. See also *personal income*.

**Doctor's degree:** An earned degree carrying the title of doctor. The Doctor of Philosophy degree (Ph.D.) is the highest academic degree and requires mastery within a field of knowledge and demonstrated ability to perform scholarly research. Other doctorates are awarded for fulfilling specialized requirements in professional fields, such as education (Ed.D.), musical arts (D.M.A.), business administration (D.B.A.), and engineering (D.Eng. or D.E.S.). Many doctor's degrees in both academic and professional fields require an earned master's degree as a prerequisite. First-professional degrees, such as M.D. and D.D.S., are not included under this heading.

**Elementary school:** A school classified as elementary by state and local practice and composed of any span of grades not above grade 8. A preschool or kindergarten school is included under this heading only if it is an integral part of an elementary school or a regularly established school system.

**Elementary and secondary schools:** As used in this publication, includes only regular schools, that is, schools that are part of state and local school systems and also most private elementary and secondary schools, both religiously affiliated and nonsectarian. Schools not included in this term are

subcollegiate departments of institutions of higher education, American residential schools for exceptional children, federal schools for Indians, and federal schools on military posts and other federal installations.

**Enrollment:** The number of students registered in a given school unit at a given time, generally in the fall of a year.

**First-professional degree:** A degree that signifies both completion of the academic requirements for beginning practice in a given profession and a level of professional skill beyond that normally required for a bachelor's degree. This degree is based on a program requiring at least 2 academic years of work before entrance and a total of at least 6 academic years of work to complete the degree program, including both prior required college work and the professional program itself. By NCES definition, first-professional degrees are awarded in the fields of dentistry (D.D.S. or D.M.D.), medicine (M.D.), optometry (O.D.), osteopathic medicine (D.O.), pharmacy (D.Phar.), podiatry (D.P.M.), veterinary medicine (D.V.M.), chiropractic (D.C. or D.C.M.), law (LL.B. or J.D.), and theological professions (M.Div. or M.H.L.).

**First-professional enrollment:** The number of students enrolled in a professional school or program that requires at least 2 years of academic college work for entrance and a total of at least 6 years for a degree. By NCES definition, first-professional enrollment includes only students in certain programs. (See *first-professional degree* for a list of programs.)

**Full-time enrollment:** The number of students enrolled in higher education courses with total credit load equal to at least 75 percent of the normal full-time course load.

**Full-time-equivalent (FTE) enrollment:** For institutions of higher education, enrollment of full-time students, plus the full-time equivalent of part-time students as reported by institutions. In the absence of an equivalent reported by an institution, the FTE enrollment is estimated by adding one-third of part-time enrollment to full-time enrollment.

**Full-time worker:** In educational institutions, an employee whose position requires being on the job on school days throughout the school year at least the number of hours the schools are in session; for higher education, a member of an educational institution's staff who is employed full time.

**Graduate:** An individual who has received formal recognition for the successful completion of a prescribed program of studies.

**Graduate enrollment:** The number of students who hold the bachelor's or first-professional degree, or the equivalent, and who are working toward a master's or doctor's degree. First-professional students are counted separately. These enrollment data measure those students who are registered at a particular time during the fall. At some institutions, graduate enrollment also includes students who are in postbaccalaureate classes but not in degree programs.

**High school:** A secondary school offering the final years of high school work necessary for graduation, usually including grades 10, 11, and 12 (in a 6-3-3 plan), or grades 9, 10, 11, and 12 (in a 6-2-4 plan).

**Higher education:** Study beyond secondary school at an institution that offers programs terminating in an associate, baccalaureate, or higher degree.

**Higher education institutions (traditional classifications):**

> **4-year institution:** An institution legally authorized to offer and offering at least a 4-year program of college-level studies wholly or principally creditable toward a bachelor's degree. A university is a postsecondary institution that typically includes one or more graduate professional schools.
>
> **2-year institution:** An institution legally authorized to offer and offering at least a 2-year program of college-level studies that terminates in an associate degree or is principally creditable toward a baccalaureate.

See also *degree-granting institutions* and *postsecondary education*.

**Master's degree:** A degree awarded for successful completion of a program generally requiring 1 or 2 years of full-time college-level study beyond the bachelor's degree. One type of master's degree, including the Master of Arts degree (M.A.) and the Master of Science degree (M.S.), is awarded in the liberal arts and sciences for advanced scholarship in a subject field or discipline and demonstrated ability to perform scholarly research. A second type of master's degree is awarded for the completion of a professionally oriented program, for example, an

M.Ed. in education, an M.B.A. in business administration, an M.F.A. in fine arts, an M.M. in music, an M.S.W. in social work, or an M.P.A. in public administration. A third type of master's degree is awarded in professional fields for study beyond the first-professional degree, for example, the Master of Laws (LL.M.) and Master of Science in various medical specializations.

**Part-time enrollment:** The number of students enrolled in higher education courses with a total credit load of less than 75 percent of the normal full-time credit load.

**Personal income:** Current income received by persons from all sources minus their personal contributions for social insurance. Classified as "persons" are individuals (including owners of unincorporated firms), nonprofit institutions serving individuals, private trust funds, and private noninsured welfare funds. Personal income includes transfers (payments not resulting from current production) from government and business such as social security benefits, military pensions, and so forth, but excludes transfers among persons.

**Postbaccalaureate enrollment:** The number of graduate and first-professional students working toward advanced degrees and students enrolled in graduate-level classes but not enrolled in degree programs. See also *graduate enrollment* and *first-professional enrollment*.

**Postsecondary education**: The provision of formal instructional programs with a curriculum designed primarily for students who have completed the requirements for a high school diploma or equivalent. This includes programs of an academic, vocational, and continuing professional education purpose, and excludes avocational and adult basic education programs.

**Private institution:** A school or institution that is controlled by an individual or agency other than a state, a subdivision of a state, or the federal government; that is usually supported primarily by other than public funds; and the operation of whose program rests with other than publicly elected or appointed officials.

**Public school or institution:** A school or institution controlled and operated by publicly elected or appointed officials and generally deriving its primary support from public funds.

**School:** A division of the school system consisting of students in one or more grades or other identifiable groups and organized to give instruction of a defined type. One school may share a building with another school or one school may be housed in several buildings.

**Secondary instructional level:** The general level of instruction provided for pupils in secondary schools (generally covering grades 7 through 12 or 9 through 12) and any instruction of a comparable nature and difficulty provided for adults and youth beyond the age of compulsory school attendance.

**Secondary school:** A school including any span of grades beginning with the next grade following an elementary or middle school (usually 7, 8, or 9) and ending with or below grade 12. Both junior high schools and senior high schools are included.

**Senior high school:** A secondary school offering the final years of high school work necessary for graduation.

**Student:** An individual for whom instruction is provided in an educational program under the jurisdiction of a school, school system, or other educational institution. No distinction is made between the terms "student" and "pupil," although "student" may refer to one receiving instruction at any level while "pupil" refers only to one attending school at the elementary or secondary level. The term "student" is used to include individuals at all instructional levels. A student may receive instruction in a school facility or in another location, such as at home or in a hospital. Instruction may be provided by direct student-teacher interaction or by some other approved medium, such as television, radio, telephone, or correspondence.

**Unclassified students:** Students who are not candidates for a degree or other formal award, although they are taking higher education courses for credit in regular classes with other students.

**Undergraduate students:** Students registered at an institution of higher education who are working in a program leading to a baccalaureate or other formal award below the baccalaureate, such as an associate's degree.

## Statistical Terms

**Autocorrelation**: Correlation of the error terms from different observations of the same variable. Also called *serial correlation*.

**Degrees of freedom:** The number of free or linearly independent sample observations used in the calculation of a statistic. In a time series regression with t time period and k independent variables including a constant term, there would be t minus k degrees of freedom.

**Dependent variable:** A mathematical variable whose value is determined by that of one or more other variables in a function. In regression analysis, when a random variable, y, is expressed as a function of variables $x_1$, $x_2$,..., plus a stochastic term, then y is known as the "dependent variable."

**Double exponential smoothing:** A method that takes a single smoothed average component of demand and smoothes it a second time to allow for estimation of a trend effect.

**Durbin-Watson statistic:** A statistic testing the independence of errors in least squares regression against the alternative of first-order serial correlation. The statistic is a simple linear transformation of the first-order serial correlation of residuals and, although its distribution is unknown, it is tested by bounding statistics that follow R. L. Anderson's distribution.

**Econometrics:** The quantitative examination of economic trends and relationships using statistical techniques, and the development, examination, and refinement of those techniques.

**Estimate:** A numerical value obtained from a statistical sample and assigned to a population parameter. The particular value yielded by an estimator in a given set of circumstances or the rule by which such particular values are calculated.

**Estimating equation:** An equation involving observed quantities and an unknown that serves to estimate the latter.

**Estimation:** Estimation is concerned with inference about the numerical value of unknown population values from incomplete data, such as a sample. If a single figure is calculated for each unknown parameter, the process is called point estimation. If an interval is calculated within which the parameter is likely, in some sense, to lie, the process is called interval estimation.

**Exogenous variable:** Variables for which the values are determined outside the model but which influence the model.

**Exponential smoothing:** A method used in time series to smooth or to predict a series. There are various forms, but all are based on the supposition that more remote history has less importance than more recent history.

**First-order serial correlation:** When errors in one time period are correlated directly with errors in the ensuing time period. Also called *autocorrelation*.

**Forecast:** An estimate of the future based on rational study and analysis of available pertinent data, as opposed to subjective prediction.

**Forecast horizon:** The number of time periods into the future which are forecasted. Forecasts for next year are said to have a 1-year forecast horizon.

**Forecasting:** Assessing the magnitude which a quantity will assume at some future point in time, as distinct from "estimation," which attempts to assess the magnitude of an already existent quantity.

**Function:** A mathematical correspondence that assigns exactly one element of one set to each element of the same or another set. A variable that depends on and varies with another.

**Functional form:** A mathematical statement of the relationship among the variables in a model.

**Independent variable:** In regression analysis, when a random variable, y, is expressed as a function of variables $x_1$, $x_2$,..., plus a stochastic term, the x's are known as "independent variables."

**Interpolation:** See *linear interpolation*.

**Linear interpolation:** A method that allows the prediction of an unknown value if any two particular values on the same scale are known and the rate of change is assumed constant.

**Lag:** An event occurring at time $t + k$ ($k > 0$) is said to lag behind an event occurring at time t, the extent of the lag being k. An event occurring k time periods before another may be regarded as having a negative lag.

**Maximum likelihood estimation:** A method of estimating a parameter or parameters of a population by that value (or values) that maximizes (or maximize) the likelihood of a sample.

**Mean absolute percentage error (MAPE):** The average value of the absolute value of errors expressed in percentage terms.

**Model:** A system of postulates, data, and inferences presented as a mathematical description of a phenomenon such as an actual system or process. The actual phenomenon is represented by the model in order to explain it, to predict it, and to control it.

**Ordinary least squares (OLS):** The estimator that minimizes the sum of squared residuals.

**Parameter:** A quantity that describes a statistical population.

**Projection:** In relation to a time series, an estimate of future values based on a current trend.

**$R^2$:** The coefficient of determination; the square of the correlation coefficient between the dependent variable and its OLS estimate.

**$R^2$ (also called the adjusted $R^2$):** The coefficient of determination adjusted for the degrees of freedom.

**Regression analysis:** A statistical technique for investigating and modeling the relationship between variables.

**Rho:** A measure of the correlation coefficient between errors in time period t and time period t minus 1.

**Serial correlation:** Correlation of the error terms from different observations of the same variable. Also called *autocorrelation*.

**Standard error of estimate:** An expression for the standard deviation of the observed values about a regression line. An estimate of the variation likely to be encountered in making predictions from the regression equation.

**Time series:** A set of ordered observations on a quantitative characteristic of an individual or collective phenomenon taken at different points in time. Usually the observations are successive and equally spaced in time.

**Time series analysis:** The branch of quantitative forecasting in which data for one variable are examined for patterns of trend, seasonality, and cycle.

**Variable:** A quantity that may assume any one of a set of values.

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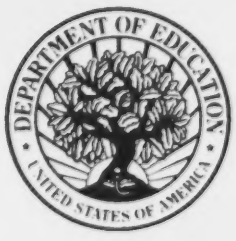

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